7–20–93
Vol. 58 No. 137

federal register

Tuesday
July 20, 1993

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SECOND CLASS NEWSPAPER
Postage and Fees Paid
U.S. Government Printing Office
(ISSN 0097–6326)

7-20-93
Vol. 58 No. 137
Pages 38661-38910

federal register

Tuesday
July 20, 1993

FEDERAL REGISTER Published daily, Monday through Friday, (not published on Saturdays, Sundays, or on official holidays), by the Office of the Federal Register, National Archives and Records Administration, Washington, DC 20408, under the Federal Register Act (49 Stat. 500, as amended; 44 U.S.C. Ch. 15) and the regulations of the Administrative Committee of the Federal Register (1 CFR Ch. I). Distribution is made only by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

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Free Electronic Bulletin Board service for Public Law numbers, Federal Register finding aids, and a list of Clinton Administration officials is available on 202–275–1538 or 275–0920.

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This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

OFFICE OF PERSONNEL MANAGEMENT

5 CFR Part 890

RIN 3206–AE90

Federal Employees Health Benefits Program; Limitation on Inpatient Hospital Charges and FEHB Program Payments

AGENCY: Office of Personnel Management.

ACTION: Final rule.

SUMMARY: The Office of Personnel Management (OPM) is issuing final regulations that implement section 7002(f) of the Omnibus Budget Reconciliation Act of 1990. The law sets a limit on the charges and Federal Employees Health Benefits Program (FEHBP) benefit payments for certain inpatient hospital services received by a retired enrolled individual. These regulations finalize interim regulations that defined a retired enrolled individual and set forth the circumstances under which the limit on charges and FEHBP benefit payments take effect.

EFFECTIVE DATE: July 20, 1993.

FOR FURTHER INFORMATION CONTACT: Abby L. Block, (202) 606–0191.

SUPPLEMENTARY INFORMATION: On March 27, 1992, OPM issued interim regulations in the **Federal Register** (57 FR 10609) that amended part 890 to implement section 7002(f) of the Omnibus Budget Reconciliation Act of 1990 (OBRA of 1990), Public Law 101–508, which was enacted on November 5, 1990. Section 7002(f) of OBRA of 1990 amended the FEHBP law at 5 U.S.C. 8904(b) to limit the charges and FEHBP benefit payments for certain inpatient hospital services received by retired enrolled individuals.

OPM received six written comments, including one from an FEHBP fee-for-service plan, one from the underwriter for several FEHBP fee-for-service plans, two from individual medical institutions, and two from associations representing medical institutions.

Three of the commenters discussed the determination of the FEHBP payment amount. Under the interim regulation, the FEHBP plan pays the lowest of the diagnostic related group (DRG) equivalent amount, (the DRG equivalent amount is the amount, using information and instructions provided by the Department of Health and Human Services (HHS) and guidelines supplied by OPM, calculated by FEHBP plans to be equivalent to the amount paid by Medicare for inpatient hospital services under its prospective payment system (PPS)), the amount payable under the specific FEHBP plan's benefit structure, or the actual billed charges. Two of the commenters pointed out that under the Medicare Program the DRG amount is paid regardless of whether the actual charges are higher or lower than the DRG amount. The other commenter urged the elimination of the reference to actual billed charges because the FEHBP plan's payment arrangement may already incorporate an actual billed charges limitation.

After the first comment period closed, OPM met informally with various interested parties and discussed some aspects of the interim regulation. Included in the discussion was the option of requiring FEHBP plans always to pay the DRG equivalent amount. On January 15, 1993, OPM issued a 15-day extension of the comment period on the interim regulations (58 FR 4569). The extension of the comment period specifically mentioned the option of requiring FEHBP plans always to pay the DRG equivalent amount. During the extension of the comment period OPM received five written comments, including two from FEHBP fee-for-service plans, two from associations representing medical institutions, and one from a Federal employee. All of the five commenters supported a change in the regulations requiring FEHBP plans to always pay the DRG equivalent amount.

Based on our experience implementing the limitation on inpatient hospital charges and FEHBP payments during 1992, and the comments received during the regulatory process, OPM has decided to amend the interim regulations. These final regulations amend § 890.904 to require the FEHBP plans always to base their payment on the DRG equivalent amount, instead of the lowest of the DRG equivalent amount, the amount payable under the specific FEHBP plan's benefit structure, or the actual billed charges. Section 890.904 is amended to also clarify that the DRG equivalent amounts calculated by the FEHBP plans are not reduced by any Medicare deductible, coinsurance or lifetime limits, and that retired enrolled individuals covered by the limitation are responsible for paying any applicable FEHBP deductible, coinsurance, or copayments on benefit payments made under this subpart.

Continuing with the comments received during the first comment period, four of the commenters discussed the calculation by the FEHBP plans of the DRG equivalent amount. The commenters are concerned about whether the FEHBP plans calculate the DRG equivalent amount correctly and are specifically interested in how the plans make adjustments in the DRG equivalent amount for factors such as indirect medical education, organ acquisition and capital costs.

It is the intention of OPM and the FEHBP plans to calculate the DRG equivalent amount as closely as possible to the amount that would be calculated under the Medicare Program, and we have been working with the Health Care Financing Administration (HCFA) which administers the Medicare program to achieve this result. The FEHBP plans calculate the DRG equivalent payment amount by following instructions provided by HCFA in using the Medicare Grouper, Code Editor and Pricer software in combination with the provider specific data supplied by HCFA. It is OPM's understanding that this method of calculating the DRG equivalent amount accounts for all of the possible adjustments to the DRG amount with the exception of "pass-thru" adjustments. For the beginning of the 1992 coverage year, capital cost data was not available to the FEHBP plans. The FEHBP plans were advised to use "pass-thru" information multiplied by the length of stay to determine an equivalent capital cost adjustment amount. Capital cost information should be available to the FEHBP plans for the

1993 coverage year. HCFA's provider-specific pass-thru data are likewise used for the payment of direct medical education and organ acquisition expenses.

Two commenters discussed the section of the regulation that states that neither OPM nor the FEHBP plans will perform end-of-year settlements with, or make retroactive adjustments as a result of, retroactive changes in the Medicare payment calculation information to hospital providers who have received benefit payments under these regulations.

One commenter had three questions on this issue. The first was whether the prohibition on end-of-year settlements is a transition rule relating to the January 1, 1992, effective date of the limitation on charges and payments. The answer is that the prohibition on end-of-year settlements is not a transition rule. The second question was if the rule is not transitory does it prohibit carriers from making end-of-year settlements with hospitals for reasons other than retroactive changes in the Medicare payment calculation. The answer is that the rule does not prohibit carriers from making end-of-year settlements for reasons other than retroactive changes in the payment calculation, but we are not aware of any other reason under these regulations that would require end-of-year settlements. The third question was whether the prohibition on year-end settlements apply even if the settlements would result in a refund to the FEHBP plan. The answer is that the prohibition on year-end settlements apply even if the settlements would result in a refund to the FEHBP plan.

Another commenter expressed the belief that the law compels OPM and the FEHBP plans to recognize changes in DRG payment rates, including those made retroactively by Congress or HCFA. It is the clear intention of OPM and the FEHBP plans to pay a DRG equivalent amount that is as close as possible to the Medicare payment the provider would receive for the services rendered. This means that the FEHBP plans would attempt to pay a revised DRG equivalent amount on those very rare occasions when legislation retroactively changes the Medicare payment calculation information, to the extent that it is administratively feasible. The FEHBP plans receive the most current provider-specific information available from HCFA. As stated in § 890.907 of the regulations, the hospital provider information is currently being updated on an annual basis. However, OPM and HCFA are working toward increasing the updating cycle to a quarterly basis.

Two commenters stated that these regulations should establish a mechanism for a hospital provider to appeal a payment made by an FEHBP plan if the hospital believes that there has been an error in the determination of the DRG equivalent payment rate. The language in OBRA of 1990 which enacted these limits on inpatient hospital charges and payments did not provide for the establishment of an appeal mechanism. However, FEHBP plans have a clear obligation to work with hospital providers to determine the correct amounts and to make the necessary adjustments.

One commenter recommended that, given the administrative complexity of the DRG payment system, OPM should adopt HCFA's rules regarding the correction of billing and payment errors and the misspecification of DRG's. As in the case of an appeal mechanism, the OBRA of 1990 legislation did not provide for OPM to adopt HCFA's rules. However, FEHBP plans have the clear obligation to work with hospital providers to ensure that the correction of errors in billing and payment and the misspecification of DRG's are handled in the same fashion as disagreements. The plans and hospital providers must work together to correct errors.

One commenter recommended that OPM make available its estimate on the number and characteristics of the FEHBP patient population covered by this regulation, and the impact of this regulation on hospitals. We estimate that there are 305,000 individuals who meet the definition of retired enrolled individual and to whom the limits on inpatient hospital charges and payments apply. However we have no estimates on the characteristics of these individuals or how the implementation of the limits will impact on hospitals.

One commenter felt that OPM should provide guidance on identifying affected enrollees to carriers, should provide technical assistance to carriers and hospitals for tracking and billing for services provided to affected enrollees, and should adopt a consistent data set and reporting and review requirements for billing across FEHBP plans. OPM is aware of the importance of giving the FEHBP plans accurate information on how to implement this regulation. We have provided to the FEHBP plans guidance on identifying affected enrollees and technical assistance for tracking and billing for services provided to affected enrollees, and have adopted a consistent data set and reporting and review requirements for billing across FEHBP plans.

One commenter suggested that to avoid potential misunderstandings among hospitals, FEHBP plans, OPM, the Medicare program and FEHBP enrollees, OPM should establish an office and process to manage requests for clarifications or misunderstandings that may arise about the program and the limits on inpatient hospital charges and FEHBP payments. Long before OBRA of 1990 was enacted, OPM had established offices to administer the FEHBP. These offices have been managing the requests for clarifications that have arisen over the limits specified by OBRA of 1990.

One commenter thought it would be worthwhile if the FEHBP plans or OPM notify enrollees of the limits on inpatient hospital charges and FEHBP payments specified by OBRA of 1990 so that enrollees are aware of what the limits may mean for them. OPM recognized the importance of alerting enrollees to the possible impact of these limitations and took positive steps to inform enrollees. First, the 1991 Open Season Information and Instructions for Annuitants included an explanation of the limits that was prominently placed under the caption "Attention All Enrollees". Second, an explanation of the limits was included in all of the 1992 brochures of the FEHBP's fee-for-service plans.

One commenter stated that the extent to which the revised payment methodology changes FEHBP enrollee cost-sharing should be spelled out. As an example, the commenter asks if the computation of coinsurance changes to 20 percent of the DRG equivalent amount for a plan whose coinsurance is currently set at 20 percent of charges. The answer is yes, the coinsurance remains at 20 percent, but instead of being applied to the hospital charges the coinsurance will be applied to the DRG equivalent amount. The fact that coinsurance will be applied to the DRG equivalent amount will be explained in the FEHBP brochure of the fee-for-service plans, beginning in 1994.

One commenter, an underwriter of several FEHBP plans, stated that they have been processing 30 claims per week which require the calculation of the DRG equivalent amount. The commenter explained that these claims are requiring more work to process than other claims. For example, 50 percent of the bills require phone calls or letters requesting diagnosis and procedures codes, and this extra work is having an adverse impact on the FEHBP plans' claims processing costs.

OPM understands that processing these claims, because of the need to calculate the DRG equivalent amount,

may require more work than the average FEHBP claim. We also believe that since the processing of these claims started only in January of 1992 there is a learning curve involved and in time the plans and hospitals will become more efficient in processing these claims.

Waiver of the 30-day Delay in Effective Date of Final Regulation

Pursuant to 5 U.S.C. 553(d)(3), I find that good cause exists to make this amendment effective in less than 30 days. The regulation is effective immediately because the limitation of inpatient hospital charges and FEHBP payments enacted by Public Law 101–508 addressed in this regulation was effective beginning on January 1, 1992, and equity and fairness for hospitals and administrative simplicity for FEHBP plans are advanced by the amendment in this regulation.

E.O. 12291, Federal Regulation

I have determined that this is not a major rule as defined under section 1(b) of E.O. 12291, Federal Regulation.

Regulatory Flexibility Act

I certify that these regulations will not have a significant economic impact on a substantial number of small entities because they primarily affect the health care coverage of Federal annuitants and former spouses.

List of Subjects in 5 CFR Part 890

Administrative practice and procedure, Government employees, Health facilities, Health insurance, Health professions, Hostages, Reporting and recordkeeping requirements, Retirement.

U.S. Office of Personnel Management.

Patricia W. Lattimore,

Acting Deputy Director.

Accordingly, OPM is adopting its interim regulations amending 5 CFR part 890 published on March 27, 1992, (57 FR 10609) as final rules with the following change:

PART 890—FEDERAL EMPLOYEES HEALTH BENEFITS PROGRAM

1. The authority citation for part 890 continues to read as follows:

Authority: 5 U.S.C. 8913; § 890.803 also issued under 50 U.S.C. 403p, 22 U.S.C. 4069c and 4069c–1; subpart L also issued under sec. 599C of Pub. L. 101–513, 104 Stat. 2064.

2. Section 890.904 is revised to read as follows:

§ 890.904 Determination of FEHB benefit payment.

The FEHB plan's benefit payment under this subpart is the amount calculated by the FEHB plan, using information and instructions provided by the Department of Health and Human Services (HHS) and guidelines specified by OPM, as equivalent to the Medicare Part A payment under the DRG-based PPS (this is, the amount payable before the Medicare deductible, coinsurance and lifetime limits are applies), reduced by any FEHB plan deductible, coisurance, copayment, or preadmission certification penalty that is the responsibility of the retired enrolled individual.

[FR Doc. 93–17121 Filed 7–19–93; 8:45 am]

BILLING CODE 6325–01–M

DEPARTMENT OF AGRICULTURE

Commodity Credit Corporation

7 CFR Part 1421

RIN 0560–AD12

1993–95 Wheat and Feed Grain Marketing Loan Provisions

AGENCY: Commodity Credit Corporation, USDA.

ACTION: Final rule.

SUMMARY: On March 4, 1993, the Commodity Credit Corporation (CCC) issued a proposed rule with respect to marketing loan provisions for the 1993 through 1995 crops of wheat and feed grains. The Omnibus Budget Reconciliation Act of 1990 required implementation of marketing loan provisions for the 1993 through 1995 crops of wheat and feed grains in accordance with the Agricultural Act of 1949 (the 1949 Act), as amended, because the U.S. did not enter into an agricultural agreement in the Uruguay Round of the multilateral trade negotiations under the General Agreement on Tariffs and Trade (GATT) by June 30, 1992. This final rule amends the regulations to set forth the marketing loan provisions for the 1993 through 1995 crops of wheat and feed grains. These regulations will allow the U.S. wheat and feed grains to remain globally competitive by enabling producers to repay nonrecourse commodity loans when prices fall below the price support rate.

EFFECTIVE DATE: July 19, 1993.

FOR FURTHER INFORMATION CONTACT: Philip W. Sronce, Director, Grains Analysis Division, Agricultural Stabilization and Conservation Service (ASCS), United States Department of Agriculture (USDA), P.O. Box 2415, room 3742–S, Washington, DC 20013–2415 or call 202–720–4418.

SUPPLEMENTARY INFORMATION:

Executive Order 12291 and Departmental Regulation 1512–1

This final rule has been reviewed under USDA procedures established in accordance with Executive Order 12291 and Departmental Regulation 1512–1 and has been designated as "nonmajor." It has been determined that this final rule will not result in:

(1) An annual effect on the economy of $100 million or more;

(2) Major increases in costs or prices for consumers, individual industries, Federal, State, or local Government agencies, or geographic regions; or

(3) Significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete in domestic or export markets.

Final Regulatory Impact Analysis

The Final Regulatory Impact Analysis describing the options considered in developing this rule and the impact of the implementation of each option is available on request from Craig Jagger, Agricultural Economist, Grains Analysis Division, ASCS, USDA, P.O. Box 2415, room 3740–S, Washington, DC 20013–2415 or call 202–720–4418.

Federal Assistance Programs

The titles and numbers of the Federal Assistance Programs, as found in the Catalog of Federal Domestic Assistance, to which this rule applies are as follows:

Title	Number
Commodity loans and purchases	10.051
Feed grain production stabilization	10.055
Wheat production stabilization	10.058

Regulatory Flexibility Act

It has been determined that the Regulatory Flexibility Act is not applicable to this rule because the CCC is not required by 5 U.S.C. 553 or any other provision of law to publish a notice of proposed rulemaking with respect to the subject matter of this rule.

Executive Order 12778

This final rule has been reviewed in accordance with Executive Order 12778. The provisions of this final rule do not preempt State laws, are not retroactive, and do not require the exhaustion of any administrative appeal remedies.

Environmental Assessment or Impact Statement

It has been determined by an environmental evaluation that this action will not have a significant impact

on the quality of the human environment. Therefore, neither an Environmental Assessment nor an Environmental Impact Statement is needed.

Executive Order 12372

This program/activity is not subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local officials. See the Notice related to 7 CFR part 3015, subpart V, published at 48 FR 29115 (June 24, 1983).

Paperwork Reduction Act

The information collection requirements contained in these regulations have been approved by the Office of Management and Budget (OMB) under the provisions of 44 U.S.C. chapter 35 and have been assigned OMB #0560–0087 in accordance with the Paperwork Reduction Act of 1980 (44 U.S.C. 3507). The final rule does not revise or impose any new information collection or recordkeeping requirements from those approved by OMB.

Public Comments

This final rule amends 7 CFR part 1421 to set forth the determinations for implementing marketing loan provisions for the 1993 through 1995 crops of wheat and feed grains. General descriptions of the statutory basis for the determinations in this final rule were set forth at 58 FR 12338 (March 4, 1993).

The public was asked to comment on: (1) Whether marketing loan repayment rates should be established at the alternative repayment rate (ARR) when the world market price, adjusted to U.S. quality and location (i.e., the adjusted world price (AWP)) is less than the loan level, or by some other method; (2) whether the AWP's for wheat and feed grains should be established on a daily basis for each county based upon the previous day's market prices at appropriate U.S. terminal markets, as determined by CCC, adjusted to reflect quality and location (i.e., the same levels at which generic certificates can currently be exchanged for wheat and feed grains commonly referred to as "posted county prices" or (PCP's)), or by some other method; and (3) whether or not to allow producers who are eligible to receive a nonrecourse loan or purchase agreement be permitted to forgo obtaining the loan or purchase agreement in return for loan deficiency payments (LDP's).

A total of 15 respondents commented on the proposed rule for 1993–95 wheat and feed grain marketing loan provisions. Comments were received from 7 producers or producer groups, 3 grain industry organizations, a state and a county Agricultural Stabilization and Conservation (ASC) committee, 1 state Department of Agriculture, and 2 rural advocacy groups.

The following is a summary of the comments received by type of respondent.

TABLE 1.—SUMMARY OF COMMENTS ON MARKETING LOAN PROVISIONS, BY TYPE OF RESPONDENT

Type of respondent	Use PCP's			Use LDP's		
	Yes	No	NC	Yes	No	NC
7 Producers or producer organizations	4	[1] 1	2	1	.....	6
3 Grain merchandising firms or assoc	3	.....	.....	2	.....	1
2 ASC committees	2	.....	.....	1	.....	1
2 Farm advocacy groups	.....	.....	2	.....	.....	2
1 State Department of Agriculture	1	.....	.....	.....	.....	1

NC denotes no comment was made or comments were not germane to the issues for which comments were requested.
[1] Requested that the marketing loan repayment rate be set at 70 percent of the basic loan rate.

Marketing Loan Repayment Rate

In accordance with section 107B(a)(4)(C), in the case of wheat, and section 105B(a)(4)(C), in the case of feed grains, of the 1949 Act, it is determined that when the AWP is less than the loan level, a producer may repay a nonrecourse loan at the ARR. For the purposes of this rule, the ARR equals the AWP, and the loan level determined for a crop equals the loan level and charges, plus interest.

AWP's

In accordance with section 107B(a)(4)(C), in the case of wheat, and section 105B(a)(4)(C), in the case of feed grains, of the 1949 Act, it is also determined that AWP's for wheat and feed grains be established on a daily basis for each county based upon the previous day's market prices at appropriate U.S. terminal markets, as determined by CCC, adjusted to reflect quality and location. Thus, the marketing loan repayment rates for the wheat and feed grain marketing loan provisions of the 1949 Act would be set at the same levels at which generic certificates can currently be exchanged for wheat and feed grains (i.e., PCP's).

The CCC has determined that this approach would (1) minimize potential loan forfeitures, (2) minimize the accumulation of wheat and feed grain stocks, (3) minimize the cost incurred by the Federal Government in storing wheat and feed grains, and (4) allow wheat and feed grains produced in the U.S. to be marketed freely and competitively, both domestically and internationally.

Loan Deficiency Payments

In accordance with sections 107B(b) and 105B(b) of the 1949 Act, it is proposed that producers who are eligible to receive a nonrecourse loan or purchase agreement be permitted to forgo obtaining the loan or purchase agreement in return for loan deficiency payments.

List of Subjects in 7 CFR Part 1421

Grains, Loan programs/agriculture, Oilseeds, Peanuts, Price support programs, Reporting and recordkeeping requirements, Soybeans, Surety bonds, Warehouses.

Accordingly, 7 CFR part 1421 is amended as follows:

PART 1421—GRAINS AND SIMILARLY HANDLED COMMODITIES

1. The authority citation for 7 CFR part 1421 continues to read as follows:

Authority: 7 U.S.C. 1421, 1423, 1425, 1441z, 1444f–1, 1445b–3a, 1444c–3, 1445e, and 1446f; 15 U.S.C. 714b and 714c.

2. In § 1421.1, paragraph (c)(1) is revised to read as follows:

§ 1421.1 Applicability.

* * * * *

(c)(1) Price support loans, purchase agreements, and loan deficiency payments shall be available as provided in this part with regard to barley, corn,

grain sorghum, oats, rye, and wheat produced in the U.S.

* * * * *

3. In § 1421.20, paragraph (b) is revised to read as follows:

§ 1421.20 Release of the commodity pledged as collateral for a loan.

* * * * *

(b) CCC may allow a producer to establish a loan repayment rate determined in accordance with § 1421.25 (a)(1)(ii), (b)(2), or (d)(2) on Form CCC–681–1, Authorization for Delivery of Loan Collateral for Sale, provided the producer complies with all terms and conditions set forth on Form CCC–681–1. If a producer fails to repay a loan within the time period prescribed by CCC in accordance with the terms and conditions of Form CCC–681–1 and the commodity pledged as collateral for such loan has been delivered to a buyer in accordance with Form CCC–681–1, such producer may not repay the loan at the level that is less than the loan level determined in accordance with § 1421.25 (a)(1)(ii), (b)(2), or (d)(2).

* * * * *

4. In § 1421.25:

A. Paragraph (d) is redesignated as paragraph (f), and revised,

B. Paragraph (e) is removed, and

C. New paragraphs (d) and (e) are added to read as follows:

§ 1421.25 Market price repayments.

* * * * *

(d) For 1993 through 1995 crops of barley, corn, grain sorghum, oats, rye, and wheat, a producer may repay a nonrecourse loan at a level that is the lesser of:

(1) The loan level and charges, plus interest determined for such crop; or

(2) The alternative repayment rate (ARR) for barley, corn, grain sorghum, oats, rye, and wheat.

(e) The ARR for barley, corn, grain sorghum, oats, rye, and wheat will be established individually on a daily basis in each county based upon the previous day's market prices at appropriate U.S. terminal markets, as determined by CCC, adjusted to reflect quality and location.

(f) To the extent practicable, CCC shall determine and announce the repayment levels for each crop of a commodity as follows:

(1) On a weekly basis for rice and oilseeds, except soybeans, and

(2) On a daily basis for barley, corn, grain sorghum, oats, rye, soybeans, and wheat.

Signed on July 11, 1993 at Washington, DC.

Bruce R. Weber,

Acting Executive Vice President, Commodity Credit Corporation.

[FR Doc. 93–17117 Filed 7–19–93; 8:45 am]

BILLING CODE 3410–05–F

NUCLEAR REGULATORY COMMISSION

10 CFR Part 9

RIN 3150–AE79

Duplication Fees

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations by revising the charges for copying records publicly available at the NRC Public Document Room in Washington, DC. The amendment is necessary to reflect the change in copying charges resulting from the Commission's award of a new contract for the copying of records.

EFFECTIVE DATE: July 20, 1993.

FOR FURTHER INFORMATION CONTACT: Thomas E. Smith, Public Document Room Branch, Office of the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone 202–634–3366.

SUPPLEMENTARY INFORMATION: The NRC maintains a Public Document Room (PDR) at 2120 L Street NW. (Lower Level), Washington, DC. The PDR contains an extensive collection of publicly available technical and administrative records that the NRC receives or generates. Requests by the public for the duplication of records at the PDR have traditionally been accommodated by a duplicating service contractor selected by the NRC. The schedule of duplication charges to the public established in the duplicating service contract is set forth in 10 CFR 9.35 of the Commission's regulations. The NRC has recently awarded a new duplicating service contract. The revised fee schedule reflects the changes in copying charges to the public that have resulted from the awarding of the new contract for the duplication of records at the PDR.

Because this is an amendment dealing with agency practice and procedure, the notice provisions of the Administrative Procedure Act do not apply pursuant to 5 U.S.C. 553(b)(A). In addition, the PDR users were notified on July 2, 1993, that the new contract was being awarded and that the new prices would go into effect on July 13, 1993. The amendment is effective upon publication in the **Federal Register**. Good cause exists to dispense the usual 30-day delay in the effective date because the amendment is of a minor and administrative nature dealing with agency procedures.

Environmental Impact: Categorical Exclusion

The NRC has determined that this final rule is the type of action described in categorical exclusion 10 CFR 51.22(c)(1). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this final rule.

Paperwork Reduction Act Statement

This final rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget approval number 3150–0043.

Regulatory Analysis

The Nuclear Regulatory Commission is amending its regulations governing the rates charged for copying records at the NRC Public Document Room due to the signing of a new contract for the copying of records. This rule has no significant impact on health, safety or the environment. There is no substantial cost to licensees, the NRC or other Federal agencies.

Backfit Analysis

The NRC has determined that the Backfit Rule, 10 CFR 50.109, does not apply to this final rule and that a backfit analysis is not required for this final rule, because these amendments of regulations do not involve any provisions which would impose backfits as defined in 10 CFR 50.109 (a)(1).

List of Subjects in 10 CFR Part 9

Criminal penalties, Freedom of Information, Privacy, Reporting and recordkeeping requirements, Sunshine Act.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following amendment to 10 CFR part 9.

PART 9—PUBLIC RECORDS

1. The authority citation for part 9 continues to read in part as follows:

Authority: Sec. 161, 68 Stat, 948, as amended (42 U.S.C. 2201); Sec. 201, 88 Stat. 1242, as amended (42 U.S.C. 5841).

Subpart A also issued under 5 U.S.C. 552 and 31 U.S.C. 9701; Pub. L. 99–570. Subpart B also issued under 5 U.S.C. 552a. Subpart C also issued under 5 U.S.C. 552b.

2. In § 9.35, paragraphs (a)(1) and (a)(2) are revised to read as follows:

§ 9.35 Duplication fees.

(a)(1) Charges for the duplication of records made available under § 9.21 at the NRC Public Document Room (PDR), 2120 L Street, NW. (Lower Level), Washington, DC. by the duplicating service contractor are as follows:

(i) Paper to paper reproduction is $0.09 per page up to and including 8½×14 inches. Pages 11×17 inches are $0.20 each. Pages larger than 11×17 inches, including drawings, are $1.00 each.

Note: Pages greater than legal size, 8½×14 inches, and smaller than or equal to 11×17 inches shall be reduced to legal size and reproduced for $0.09 per page, *unless* the order specifically requests full size reproduction.

(ii) Microfiche to paper reproduction is $0.09 per page. Aperture card blowbacks are $3.00 each (reduced size) or $5.00 (full size).

(iii) Microfiche or aperture card duplications are $0.75 each.

(iv) Rush processing is offered for standard size paper to paper reproduction and blowbacks, excluding standing order documents and pages reproduced from bound volumes. The charge is $0.10 per page.

(v) Facsimile charges are: $0.30 per page—local calls; $0.50 per page—U.S. long distance; and $1.50 per page—foreign long distance. Facsimile orders are limited to 100 pages per order.

(2) Self-service duplicating machines are available at the PDR for the use of the public. Paper to paper copy is $0.10 per page. Microfiche to paper is $0.10 per page on the reader printers.

* * * * *

Dated at Rockville, Maryland this 14th day of July, 1993.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 93–17181 Filed 7–19–93; 8:45 am]

BILLING CODE 7590–01–P

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10 CFR Parts 170 and 171

RIN 3150–AE49

FY 1991 and 1992 Final Rule Implementing the U.S. Court of Appeals Decision and Revision of Fee Schedules; 100% Fee Recovery, FY 1993

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending the licensing, inspection, and annual fees charged to its applicants and licensees. The amendments are necessary to implement Public Law 101–508, enacted November 5, 1990, which mandates that the NRC recover approximately 100 percent of its budget authority in Fiscal Year (FY) 1993 less amounts appropriated from the Nuclear Waste Fund (NWF). The amount to be recovered for FY 1993 is approximately $518.9 million.

In addition, this rule implements a decision of the U.S. Court of Appeals for the District of Columbia Circuit dated March 16, 1993, that remanded to the NRC portions of the FY 1991 annual fee rule. The remanded portions pertain to: (1) The NRC's decision to exempt from annual fees nonprofit educational institutions, but not other enterprises, on the ground in part that educational institutions are unable to pass through the costs of annual fees to their customers; and (2) the Commission's decision to allocate generic costs associated with low-level waste (LLW) disposal by groups of licensees, rather than by individual licensee. Because the court's decision was also extended to cover the NRC's FY 1992 annual fee rule by subsequent court order, this final rule addresses the FY 1992 rule as well. In this final rule, the NRC has retroactive to FY 1991, revoked the exemption from annual fees for nonprofit educational institutions and has changed its method of allocating the budgeted cost for low-level waste activities. These approaches are consistent with the court's decision.

EFFECTIVE DATE: August 19, 1993.

FOR FURTHER INFORMATION CONTACT: C. James Holloway, Jr., Office of the Controller, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Telephone 301–492–4301.

SUPPLEMENTARY INFORMATION:

I. Background.
II. Responses to comments.
III. Final action—changes included in final rule.
IV. Section-by-section analysis.
V. Environmental impact: Categorical exclusion.
VI. Paperwork reduction act statement.
VII. Regulatory analysis.
VIII. Regulatory flexibility analysis.
IX. Backfit analysis.

I. Background

Public Law 101–508, the Omnibus Budget Reconciliation Act of 1990 (OBRA–90), enacted November 5, 1990, requires that the NRC recover approximately 100 percent of its budget authority less the amount appropriated from the Department of Energy (DOE) administered NWF, for FYs 1991 through 1995 by assessing fees to NRC applicants and licensees. Public Law 101–576, the Chief Financial Officers Act of 1990 (CFO Act), enacted November 15, 1990, requires that the NRC perform a biennial review of its fees and other charges imposed by the agency and revise those charges to reflect costs incurred in providing those services.

The NRC assesses two types of fees to recover its budget authority. First, license and inspection fees, established at 10 CFR part 170 under the authority of the Independent Offices Appropriation Act (IOAA) (31 U.S.C. 9701), recover the NRC's costs of providing individually identifiable services to specific applicants and licensees. The services provided by the NRC for which these fees are assessed are generally for the review of applications for the issuance of new licenses or approvals, amendments to or renewal of licenses or approvals, and inspections of licensed activities. Second, annual fees, established at 10 CFR part 171 under the authority of OBRA–90, recover generic and other regulatory costs not recovered through 10 CFR part 170 fees.

Subsequent to enactment of OBRA–90, the NRC published three final fee rules after evaluation of public comments. On July 10, 1991 (56 FR 31472), the NRC published a final rule in the **Federal Register** that established the part 170 professional hourly rate and the materials licensing and inspection fees, as well as the part 171 annual fees to be assessed to recover approximately 100 percent of the FY 1991 budget. In addition to establishing the FY 1991 fees, the final rule established the underlying basis and method for determining the 10 CFR part 170 hourly rate and fees, and the 10 CFR part 171 annual fees. The FY 1991 rule was challenged in Federal court by several parties; the U.S. Court of Appeals for the District of Columbia Circuit rendered its decision on March 16, 1993. The court decision was also extended to cover the FY 1992 fee rule by court order dated April 30, 1993. The court case and the NRC's response to the issues remanded by the court are discussed in Section II of this final rule.

On April 17, 1992 (57 FR 13625), the NRC published in the **Federal Register** two limited changes to 10 CFR parts 170 and 171. The limited changes became effective May 18, 1992. The limited change to 10 CFR part 170 allowed the NRC to bill quarterly for those license

fees that were previously billed every six months.

The limited change to 10 CFR part 171 adjusted the maximum annual fee of $1,800 assessed a materials licensee who qualifies as a small entity under the NRC's size standards. A lower-tier small entity fee of $400 per licensed category was established for small businesses and non-profit organizations with gross annual receipts of less than $250,000 and small governmental jurisdictions with a population of less than 20,000.

On July 23, 1992 (57 FR 32691), the NRC published a final rule in the **Federal Register** that established the licensing, inspection, and annual fees necessary for the NRC to recover approximately 100 percent of its budget authority for FY 1992. The basic methodology used in the FY 1992 final rule was unchanged from that used to calculate the 10 CFR part 170 professional hourly rate, the specific materials licensing and inspection fees in 10 CFR part 170, and the 10 CFR part 171 annual fees in the final rule published July 10, 1991 (56 FR 31472).

Section 2903(c) of the Energy Policy Act (enacted in October 1992) requires the NRC to undertake a broad review of its annual fee policies under section 6101(c) of OBRA–90, solicit public comment on the need for policy changes, and recommend changes in existing law to the Congress that the NRC finds are needed to prevent the placement of an unfair burden on certain NRC licensees. To comply with the Energy Policy Act requirements, the NRC published for public comment a separate notice in the **Federal Register** on April 19, 1993 (58 FR 21116). The 90-day public comment period for this notice expires on July 19, 1993.

On April 23, 1993 (58 FR 21662), the NRC published the proposed rule for FY 1993 establishing the licensing, inspection, and annual fees necessary for the NRC to recover approximately 100 percent of its budget authority for FY 1993, less the appropriation received from the NWF. The basic methodology used in the proposed rule was unchanged from that used to calculate the 10 CFR part 170 professional hourly rate, the specific materials licensing and inspection fees in 10 CFR part 170, and the 10 CFR part 171 annual fees set forth in the final rules published July 10, 1991 (56 FR 31472) and July 23, 1992 (57 FR 32691). Because of the need to collect annual fees for FY 1993 prior to October 1, 1993, the Commission is promulgating this final rule before it completes the user fee review mandated by the Energy Policy Act. Changes in Commission policy resulting from that review will be incorporated in fee schedules promulgated in future years. The NRC placed a copy of the workpapers relating to the proposed rule in its Public Document Room at 2120 L Street, NW., Washington, DC, in the lower level of the Gelman building. Workpapers relating to this final rule will also be placed in the Public Document Room.

II. Responses to Comments

The NRC received more than 500 public comments on the proposed rule. Although the comment period expired on May 24, 1993, the NRC reviewed and evaluated all comments received prior to June 25, 1993. Copies of all comment letters received are available for inspection in the NRC Public Document Room, 2120 L Street, NW. (lower level), Washington, DC.

Many of the comments were similar in nature. For evaluation purposes, these comments have been divided into two groups. The first group deals with the remand issues of the U.S. Court of Appeals for the District of Columbia Circuit case decided on March 16, 1993. The second group deals with the remaining comments on the FY 1993 proposed rule. The comments are as follows:

A. Comments Regarding U.S. Court of Appeals for the District of Columbia Circuit Remand Decision—FY 1991—FY 1993 Fee Schedules

1. Taking Account of Licensees' Ability To Pass Through Fee Costs to Customers

Comment. A number of comments were received on the question of setting NRC annual fees in part on the basis of whether the licensee can passthrough the costs of those fees to its customers. The NRC had proposed abandoning consideration of passthrough capability, a factor it previously had used in part to justify its fee exemption for certain nonprofit educational institutions, on the grounds that to evaluate each licensee's passthrough ability was an extremely difficult administrative task that required expertise and information unavailable to the agency.

Many commenters supported the NRC's approach of not setting any license fees on the basis of passthrough, due to the difficulties inherent in its use. One stated that to do otherwise would be cumbersome and subjective, and cause fees to vary in response to changing market conditions. Another commenter noted that if passthrough were used, the exempted fees would almost certainly be paid by power reactors, which have trouble passing on their costs due to fee schedules established by public utility commissions. One commenter stated that if foreign competition created a passthrough problem, Congress and not the NRC was the proper forum in which to seek relief for passthrough considerations.

Another group of commenters disagreed with the NRC's suggested approach, and argued that passthrough should be considered when devising a fee schedule. Many domestic uranium producers told the NRC that their industry cannot passthrough costs to customers due to foreign competition, lower demand and long-term fixed price contracts. Another commenter suggested that nuclear medicine departments should be eligible for exemption from fees due to passthrough considerations. They are often reimbursed for patient care by the Health Care Financing Administration, which does not take NRC fees into account. Commenters also claimed that, contrary to the NRC's stated position, the agency does have the necessary expertise to evaluate licensees' passthrough capacity and must do so under both OBRA–90 and the March 16, 1993, Court of Appeals decision. One commenter stated that the NRC could simply request an affidavit from the licensee explaining how the licensee was unable to passthrough its fee costs.

Response. After carefully considering the comments received on this difficult issue, the Commission has decided to adopt its proposal not to use passthrough as a factor for any licensee when setting that licensee's fee schedule. The Commission recognizes that all licensees dislike paying user fees and that such fees must be taken into account as part of running a business or other enterprise. However, the Commission does not believe it has the expertise or information needed to undertake the subtle and complex inquiry whether in a market economy particular licensees can or cannot easily recapture the costs of annual fees from their customers. As it stated in the proposed rule, the Commission "is not a financial regulatory agency, and does not possess the knowledge or resources necessary to continuously evaluate purely business factors. Such an effort would require the hiring of financial specialists and * * * could (lead to) higher fees charged to licensees to pay for an expanded bureaucracy to determine if * * * licensee(s) can pass on the cost of (their) fees." (58 FR 21662).

Although in the final FY 1991 annual fee rule the Commission stated that passthrough was a factor justifying the exemption of nonprofit educational institutions from fees, the Commission

had no empirical data on which it based its belief that colleges and universities could not pass through fee costs. Rather, it acted primarily on policy grounds, in an effort to aid nuclear-related education for the benefits it provides to the nuclear industry and society as a whole. On further reflection, the Commission now acknowledges that these institutions are not structurally incapable of compensating for increased costs, such as NRC fees, by means of higher tuition (prices) or budget cuts, in the same manner as profit-oriented licensees.

The Commission disagrees with those commenters who claim the NRC must by law set fees at least in part on the basis of passthrough considerations. In its decision, the D.C. Circuit clearly stated that "(t)he statutory language and legislative history (of OBRA–90) do not, in our view, add up to an inexorable mandate to protect classes of licensees with limited ability to pass fees forward." *Allied-Signal* at 5. The court went on to say that "(b)ecause (price) elasticities are typically hard to discover with much confidence, the Commission's refusal to read (OBRA–90) as a rigid mandate to do so is not only understandable but reasonable." *Allied-Signal* at 6–7. The Commission agrees with these observations, which defeat the suggestion that the Commission has a statutory obligation to exempt licensees who cannot pass through their fees to customers.

After full consideration of the passthrough question, the Commission has concluded that it cannot set fees using passthrough considerations with reasonable accuracy and at reasonable cost even for classes of licensees with few members. If the Commission were to attempt such an endeavor, it would require a comprehensive, on-going audit of each licensee's business and the industry of which it was a part. The Commission would have to examine tax returns, financial statements, and other commercial data that some licensees might be reluctant to reveal. The Commission could not simply rely on self-serving affidavits or statements by licensees themselves on passthrough problems, without jeopardizing the integrity of the 100 percent fee recovery system mandated by the Congress. Instead, the Commission would have to verify its licensees' submissions independently.

Even if the Commission could obtain all the necessary information, it does not have the business expertise or the resources to evaluate accurately that information in order to make a passthrough determination. Because this is the case, the Commission will not establish fees or base any exemptions on the alleged inability of a licensee to pass through fee costs to its customers.

This policy applies to all licensees, including those companies with long-term, fixed price contracts. In that regard, the Commission notes that companies who do business using such contracts are continuously liable for changes in the tax codes and other Federal and State regulations that occur subsequent to the commencement of these contracts, like all other enterprises active in the American economy. The Commission believes the current situation is no different. The Commission is sympathetic to licensees' complaints on the passthrough issue, but believes that it has no other choice but to pursue the course of action it has chosen.

2. Fee Exemption for Nonprofit Educational Institutions

Comment. The Commission solicited comments on whether to continue the exemption from fees for nonprofit educational institutions. The Commission had proposed continuing the exemption solely on the grounds that nuclear-related education provides a benefit both to the nuclear industry and society at large. See Final FY 1991 Rule, 56 FR 31477 (1991). Responding to the court's suggestion that educational licensees might be differentiated from profit-oriented or other licensees, the Commission requested in particular comments on whether nuclear education might "yield exceptionally large externalized benefits"—i.e., exceptional benefits that "cannot be captured in tuition or other market prices." *Allied-Signal* at 8. The Commission also "invite(d) public comments on whether to discontinue the educational exemption" entirely. 58 FR 21664 (1993).

Many of the comments received on this issue supported retaining the exemption for nonprofit educational institutions. These commenters, mostly colleges and universities, asserted that they provide a great benefit to society through nuclear-related education, and that they would be hard-pressed to sustain their programs in the face of newly imposed fees. Some claimed that if the exemption were removed, they would be forced to shut down or drastically curtail their nuclear education programs. One commenter suggested that if fees were to be charged, that it be done on a graduated basis, presumably to lessen the burden on certain licensees. Another commenter made the point that fees should not be charged to programs receiving support from the Federal government in other ways. Some commenters urged not only keeping the exemption in place, but expanding it to include museums and other nonprofit institutes. No commenter, however, addressed in any meaningful detail the question whether educational activities yielded "exceptionally large externalized benefits", the distinction emphasized by the court as a possible alternative justification for special generic treatment of educational institutions.

Other commenters instead argued that the generic educational exemption should be abandoned. A nonprofit institute asserted that if it had to pay fees to the NRC, others should as well. It believed that if all nonprofit educational institutions paid "their fair share," the fee burden on those institutions would be lowered. Similarly, a nonprofit hospital called for ending the educational exemption to create a more equitable fee schedule. The commenter also believed that the exemption penalized those nonprofit hospitals that were not covered by the educational exemption competing for scarce research funds and limited numbers of patients. Another commenter, a utility, made the argument that the NRC should only be concerned with guarding the public health and safety, not subsidizing colleges and universities. It too called for an end to the exemption. And a major fuel facility asserted that the NRC had no discretion to exempt colleges and universities from paying fees, and that the exemption should be discontinued.

Response. The Commission finds the choice before it on this issue a difficult one. As a general principle, the Commission favored a fee schedule under which each NRC licensee, including nonprofit educational institutions, pays its fair share of NRC costs in accordance with the mandate of Congress. Under such an approach, the NRC does not have to make difficult normative judgments regarding the relative social value of the benefits provided by the activities of NRC's licensees or equally difficult economic judgments regarding the impact of annual fees on the availability of those benefits. Nevertheless, the Commission recognizes that imposing fees on beneficial activities creates some risk, often very difficult to ascertain quantitatively, of cutting back on benefits. The Commission is reluctant, in particular, to impose fees that could result in diminishing the already dwindling number of university programs devoted to the nuclear sciences. But the Commission is not in a position to analyze with any

confidence the potential burden on educational benefits in comparison with the burdens that fees will impose on the beneficial activities of other licensees.

In the wake of the court's decision, the Commission issued a proposed rule that would continue in place the educational exemption. The Commission now has reluctantly concluded that in view of the court decision and the administrative record developed during the comment period, it cannot justify a generic "educational" exemption for FY 1993. Nor can it adequately rationalize the generic exemption previously allowed in FY 1991 and FY 1992.

Although the Commission had anticipated that colleges and universities benefiting from the exemption would take up the Commission's invitation to discuss and elaborate upon the "exceptionally large externalized benefits" point made by the court, they did not do so. Nor does the Commission have in hand sufficient economic data, analyses, or other support for issuing an across-the-board exemption to nonprofit educational institutions. As a result, the Commission lacks an adequate administrative record on which to base a continued generic exemption of all nonprofit educational institutions.

This is especially true in light of the court decision, which forced the Commission to acknowledge the serious weakness of, and abandon, the passthrough argument formerly made on behalf of these institutions. As the Commission has stated above, that argument was not based on empirical data. Passthrough ability in any event is an unworkable standard for setting annual fees. Without either the passthrough rationale or a persuasive "exceptionally large externalized benefits" rationale, the Commission has no choice but to charge colleges and universities fees appropriate to their status as licensees, just as it charges other classes of licensees who can and do claim that they provide important benefits to society that are worthy of generic fee exemptions.

The Commission acknowledges the seeming paradox in charging fees to a program that receives support from other agencies of the Federal government. However, it believes that it has no choice, given 100 percent recovery requirements and fairness and equity, but to charge all licensees whenever possible. For instance, the NRC levies both annual and user fees on all other NRC licensees including nonprofit, tax-exempt entities such as hospitals, museums, and institutes. Furthermore, the NRC also directly charges annual fees to other Federal agencies such as the Department of Veterans Affairs, the National Institutes of Health and the Department of Defense. Charging annual fees to colleges and universities is consistent with the Commission's preferred approach to fee recovery and Congressional guidance that NRC establish a schedule of annual charges that fairly and equitably allocates the aggregate amount of the charges among licensees and, to the maximum extent practicable, reasonably reflects the cost of providing services to such licensees or classes of licensees.

The Commission was also struck by the comments that attacked the educational exemption and urged its abandonment. Because those arguments were made by organizations such as hospitals, utilities and fuel facilities that presumably benefit from an educated nuclear workforce, the Commission read these comments as an indication that at least some assumed beneficiaries of education do not view it quite so positively as the Commission had believed. This in turn strengthened the Commission's view that the mere observation that education benefits society is not alone enough to support a generic exemption.

The Commission, however, is not unsympathetic to the problems this new course of action is likely to cause many formerly exempt nonprofit educational institutions. Because this is a change in policy, the Commission would like to call to the attention of affected licensees the possibility of paying the annual fee on an installment basis under 10 CFR 15.35(b), subject to agency approval and demonstrated need on the part of the requesting licensee.[1]

The Commission also notes that, like all other licensees, affected nonprofit educational licensees can request individual exemptions, under 10 CFR 171.11(b) or (d) for university research reactors or materials licenses. Some commenters expressed particular concern over the fate of research reactors. Any licensee seeking an individual exemption under the "public interest" standard in § 171.11(b) would be expected, as part of its showing that exceptional treatment is justified, to demonstrate severe financial hardship resulting from the newly imposed annual fees as well as significant "externalized benefits". This could include benefits to other NRC licensees. The Commission will be examining the general issue of exempting nonprofit educational institutions as part of its Energy Policy Act-mandated review, and may choose following that review to modify further its policy in this area or to recommend Congressional action. For FY 1993, however, formerly exempt nonprofit educational institutions must pay annual fees based on the preexisting fee categories into which they fall.

On a practical note, the Commission has concluded that by eliminating the exemption for past years, it must refund a portion of the surcharge paid by those reactor licensees that would otherwise have been paid by the colleges and universities. The Commission will not (and by law cannot) retroactively collect these fees from the nonprofit educational institutions for FY 1991 and FY 1992. In the near future, the NRC will separately publish final revised FY 1991 and FY 1992 schedules for reactor surcharges resulting from the revocation of this exemption. Requests for refunds should not be filed with the NRC prior to publication of these schedules.

Finally, the Commission recognizes that its action in this rule is limited only to revoking the exemption for nonprofit educational institutions from 10 CFR part 171 annual fees. The decision leaves intact the nonprofit educational exemption contained in 10 CFR part 170 (from IOAA fees). The Commission is not revoking that exemption at this time because it did not seek comments on that approach in this rulemaking. The Commission intends to evaluate that issue, as well as the wisdom of its decision regarding part 171 fees, as part of its Energy Policy Act review. Obviously, after that review, if the Commission continues to believe it is appropriate to charge nonprofit educational institutions part 171 annual fees, there is a substantial likelihood that this approach will be adopted with regard to part 170 IOAA fees as well.

3. Allocation of Low-Level Waste Costs

In FY 1991 and FY 1992, the NRC allocated low-level waste (LLW) costs by the amount of waste disposed per class of licensee, dividing the costs equally within each class. This method of cost allocation was challenged by the petitioners in *Allied-Signal*. In its decision, the court remanded the issue of LLW cost allocation to the Commission. The court stated that the NRC's class-based LLW approach required it to attempt to allocate those costs licensee-by-licensee. An integral part of the court's rationale was that it believed that NRC must have individual licensee data on LLW disposal, and if so there was no reason not to break down

[1] Requests to pay fees on an installment basis must be submitted in writing to the NRC, Office of the Controller, Division of Accounting and Finance, Washington, DC 20555. All requests must furnish satisfactory evidence of inability to pay the debt in one lump sum.

this cost allocation from the class level to the individual level.

In response to the court decision, the NRC in its proposed FY 1993 annual fee rule requested comments on four alternative methods of LLW cost allocation and possible variations of those alternatives. A number of comments were received.

Comment. Comments were received in support of each of the four alternatives for allocating Low-Level Waste (LLW) costs that were included in the proposed rule. Some commenters also recommended variations of the four basic alternatives. The alternatives were:

(1) Assess all licensees that generate LLW a uniform annual fee.

(2) Allocate the LLW budgeted cost based on the amount of LLW disposed of by groups of licensees and assess each licensee in a group the same annual fee as was done in the FY 1991 and FY 1992 rules.

(3) Assess each licensee an annual fee based on the amount of waste generated/disposed by the individual licensee, as was suggested by Allied-Signal and by the court.

(4) Base the LLW Annual Fees on Curies Generated or Disposed of

There was no consensus among the commenters regarding a preferred option. Again, the Commission is faced with a difficult policy decision.

Commenters that supported Alternative 1 (uniform fee) argued primarily that the real benefit of LLW disposal is merely the availability of such services and all generators have an equal need for this availability. In support of this argument, commenters noted that if one class of licensee (e.g., power reactors) did not exist, there would still be the same need for a regulatory framework for future disposal, and the need is independent of the amount of waste being generated today. The cost relationship to the volume of waste disposal, according to these commenters, is a contractual matter best handled between the vendor and customer. That is, the benefit will be reflected in the fees that those licensees will be required to pay to the vendors when disposing of their LLW. Most of the commenters that supported Alternative 1 believed that Alternatives 3 and 4 were not acceptable because of the problems associated with the equitable distribution of the annual fee to all applicable licensees. Commenters noted that the inequities in this approach are that some licensees are storing, either by choice or regulation, their LLW. Some commenters believe that Alternative 2 is not equitable, given the uniform need among all classes of LLW generators for a regulatory framework for future LLW disposal.

Several commenters supported Alternative 2 (uniform fee by groups of licensees) as the best and fairest method among the four alternatives. One commenter stated that this is the best alternative in terms of its fairness to licensees of different sizes and different types of waste, while not being too cumbersome to effectively implement. They indicated that, although not exact by specific licensee, Alternative 2 provides enough information to reasonably provide an equitable method for allocating fees at the present time among those who will derive future benefits from regulatory services associated with low-level waste. Commenters noted that the current volume of LLW disposed of by each class is the best gross indicator of the relative future benefit of LLW disposal sites to licensees. Other commenters preferred Alternative 2 because it is the clearest and most predictable to the waste generator and easiest for the NRC to administer. These commenters also noted that calculating the annual LLW surcharge based on individual licensees' current volume of waste (Alternative 3) would be administratively burdensome and might not bear a close relationship to the amount of waste those licensees will generate in the future.

Several commenters supported Alternative 3, which would base the LLW surcharge on the amount of waste generated or disposed of by each individual licensee. These commenters believe that Alternative 3 should be adopted since the NRC has not provided sufficient reasons to deviate from the individualized approach suggested in the decision by the U.S. Court of Appeals. They state that the other three alternatives are unfair.

One commenter supported Alternative 4 which would base the LLW surcharge on the curies of waste generated. Other commenters, however, indicated that curies generated is not a good indicator of the regulatory benefits of the NRC regulatory program. One commenter suggested a combination of Alternatives 1, 3 and 4 such that the fee assessment for LLW would include a minimum fee for all users with the largest portion of the fee being calculated based on volume generated with an additional assessment for activity (Class B and C waste) which would require stricter long term monitoring at any storage facility.

Response. Based on a careful evaluation of the comments, the Commission concludes that, on balance, a variant of Alternative 1 provides a practical, fair and equitable allocation of the NRC LLW costs to the various NRC licensees. The Commission has concluded that there should be two LLW surcharges—one for large waste generators and another for small waste generators. This conclusion reflects (1) the purpose of NRC activities whose costs are included in the surcharge; (2) existing data on which to base the fees; and (3) the Commission's duty to allocate fee burdens fairly and equitably.

The purpose of FY 1991–FY 1993 LLW waste activities is to implement the Low-Level Radioactive Waste Policy Amendments Act of 1985, and the Atomic Energy Act, which require the NRC to perform certain generic activities. These activities include developing rules, policies and guidance, performing research, and providing advice to and consultation of LLW compacts and Agreement States who will license some of the future LLW disposal sites. The budgeted costs for most of NRC generic activities are generally recovered in annual fees from the class of licensees for whom the activities are used to directly regulate. (For example, reactor research is recovered from reactor licensees, and guidance and rule development for regulation of uranium producers is recovered from uranium recovery licensees.) However, for LLW generic activities, there is no disposal site licensed by the NRC from whom to recover the generic budgeted costs that must be incurred. Since there is no LLW disposal site licensee, these costs must be allocated to other NRC licensees in order to recover 100 percent of the NRC budget as required by OBRA–90. In addition, the LLW costs budgeted by NRC in FY 1991, FY 1992, and FY 1993 are not for the wastes being disposed during these years or prior years, but are devoted to creating the regulatory framework for licensing and regulating future LLW disposal sites.[2] In fact, the sites where LLW was disposed of in FY 1991–1993 are licensed and regulated by Agreement States, not the NRC.

Given the 100 percent budget recovery requirement of OBRA–90, and the fact that there are no NRC LLW licensees from whom to recover FY 1991–1993 budgeted costs for NRC generic activities, the basic question is how should NRC allocate these costs. Congress spoke briefly to this issue in developing OBRA–90 by recognizing that certain expenses cannot be attributed directly either to an

[2] In the FY 1991 rule, the NRC indicated that "once the NRC issues a license to dispose of byproduct LLW, the Commission will reconsider the assessment of generic costs attributable to LLW disposal activities" (56 FR 31487; July 10, 1991).

individual licensee or to classes of NRC licensees. The conferees intended that the NRC fairly and equitably recover these expenses from its licensees through the annual charge, even though these expenses cannot be attributed to individual licensees or classes of licensees. These expenses may be recovered from those licensees whom the Commission, in its discretion, determines can fairly, equitably, and practicably contribute to their payment. 1356 Cong Rec. at H12692, 3.

Consistent with the Congressional guidance, the Commission believes that the LLW surcharge should be allocated based on the fundamental concept that all classes of NRC licensees which generate a substantial amount of LLW should be assessed annual fees to cover the agency's generic LLW costs.[3] Each of the alternatives in the proposed rule which were endorsed by various commenters, supports, to varying degrees, this allocation concept and provides various degrees of fairness and equity because of available data and the inherent limitations of the allocation method.

Alternative 4's "curie" approach had little support from the commenters and the Commission believes it is the least preferable alternative since volume is at least as good of an indicator, indeed probably a better indicator, of the benefits of the NRC generic low-level waste activities. In addition, cost allocation by volume is more practical to implement.

Alternatives 3 and 4, reallocating LLW disposal costs on an individual rather than class basis, may appear to some to be fairer than the current system, since each licensee would pay a fee more precisely tied to the amount of waste it currently generates or disposes of. The Commission, however, sees significant problems in an individualized approach, given the data the NRC has for FYs 1991–1993. As indicated by some of the commenters, the NRC has data on the amount of LLW disposed of by individual licensees. However, currently the NRC does not have data on the amount of waste generated for each of the over 1,000 individual licensees that generate LLW.[4] The Commission also believes that it is not practical, and probably not even possible, to determine retroactively the amount of waste generated by each individual licensee for FY 1993 and prior years since the time to capture this data has passed for many licensees.

The Commission has concluded that using available individual waste *disposal* data (Alternative 3) would result in grossly unfair annual fees since some licensees that generate LLW would not pay any fees. This would occur because licensees that generate LLW can dispose of or temporarily store the LLW. Those licensees who temporarily store their waste would not pay an annual fee if individual disposal data are used. Some licensees store their LLW because they are prohibited from disposing of their waste or because they choose not to do so for the near term. Increasingly, for example, licensees (such as those in Michigan) cannot dispose of their waste because of restrictions in the LLW Policy Act.[5] Thus, given the current situation with LLW disposal in the U.S., basing fees on individual disposal data could, in the Commission's view, result in some licensees paying the full generic costs of future LLW licensing, and some paying nothing while all licensees that generate LLW will benefit from the NRC generic LLW activities. In addition to being unfair, using individual disposal data would result in the significant administrative burden of "translating" raw and coded disposal data into usable licensee-by-licensee bills.

Some commenters point out that although the use of disposal data could result in some licensees paying no fees, they would be charged disproportionately high annual fees in the future when they do dispose of their LLW. This is not necessarily true, since many of the ongoing LLW generic activities are not recurring-type activities. For example, once the research, performance assessment, or development of rules and regulatory guides is completed, the staff does not expect to perform that work again in the future. Therefore, if licensees pay in the future they would not be required to pay for these generic regulatory costs.

Alternative 2's class-based approach would eliminate the major negative associated with Alternative 3. That is, each licensee that generates waste would pay an annual fee to recover the NRC costs that are necessary to establish and maintain a regulatory program for LLW disposal. The annual fee would be based on the average amount of waste disposed per licensee in a class. Stated another way, the average LLW disposed per class of licensees would be used as a proxy for generation. Alternative 2, however, has drawbacks for those classes with a relatively small number of licensees, such as the fuel facilities. With a small number of licensees in a class, abnormally high or abnormally low volumes of LLW disposed of by one or two licensees may skew the average so that it would no longer be a good proxy for LLW generation for that class.

As several commenters noted, Alternative 1's flat fee approach is consistent with the purpose of the FY 1991–1993 LLW activities. However, the guidance from the Congress of fairness and equity dictates that the NRC not charge the same fee for those groups of licensees that are likely to generate significantly different amounts of LLW. Because the NRC does not have sufficient data on LLW *generated* to make a refined differentiation by individual licensee or small groups, the Commission believes that fairness and equity can best be accomplished by creating two groups—large generators and small generators and charging each a flat fee. This variant of Alternative 1 would eliminate the problem caused by using groups with a small number of licensees. This variant of Alternative 1 will also result in all LLW-producing licensees paying a fairly determined fee, and avoid the gross inequities of total fee avoidance or disproportionately large fees for smaller licensees that would have resulted under the other alternatives and their variations put forth for comment in the proposed rule.

The large generators are comprised of power reactors and large fuel facilities. Waste generators in this group are each expected to generate more than 1,000 cubic feet of LLW per year. The small generators consist of all other LLW-producing licensees. The amount of the costs allocated to the two groups is estimated based on the historical average amount of waste disposed by the two groups. This reflects an 82 percent/18 percent split between the large and small groups. Within these two groups, each licensee would pay the same LLW fee (surcharge). In FY 1993, that amount is $61,100 for large

[3] Fees for the review of applications for LLW disposal sites that are submitted to NRC will be recovered under 10 CFR part 170 from the specific applicant.

[4] The Commission is evaluating whether it would be beneficial to its LLW and other regulatory programs to obtain individual LLW generation data. If the Commission does acquire such data, then the Commission would evaluate whether such data could form the basis for a revised approach for assessing the LLW surcharge.

[5] The Secretary of Energy stated in his "1991 Annual Report on Low-Level Waste Management Progress" that:

As States continued to work toward providing management and disposal capability for their low-level radioactive waste, they also grappled with the possibility of no longer having access to the low-level radioactive waste disposal facilities now operating in Nevada, South Carolina, and Washington after December 31, 1992. The Act allows those three sites to close at the end of 1992. Should this occur, on January 1, 1993, as much as 90 percent of the volume of the Nation's low-level radioactive waste not disposed by that date could be required to be stored at the point of generation, which would raise numerous heath, safety, financial, and legal issues.

generators and $1,100 for small generators.

On remand from the Court of Appeals, the Commission also adopts this approach for FY 1991 and FY 1992. This will result in refunds for some large and small LLW generators. In the near future, the NRC will separately publish final revised FY 1991 and FY 1992 fee schedules for low-level waste surcharges resulting from changing the method of allocating NRC LLW budgeted generic costs. Requests for refunds should not be filed with the NRC prior to publication of these schedules.

B. Other Comments

1. *Comment.* Many commenters stated that they were concerned about the size of the fee increases, particularly the 10 CFR part 170 inspection fees for well logging, radiography and broad scope medical programs. These commenters indicated that they believe the fees are grossly exorbitant, punitive, and self defeating and that they cannot afford to pay them. A large number of small gauge users commented that because of the fees they are unable to do the testing required to build highways and roads for Federal and State governments and urge a reconsideration of the fee structure. Other commenters stated the increased inspection fees are designed to circumvent the small-entity two-tiered annual fee system in 10 CFR part 171 which allows small entities to either pay an annual fee of $1,800 or $400 depending on the gross annual receipts of the licensee. Several commenters stated that the increase in NRC fees is an inducement for Agreement States to raise their regulatory fees. One commenter suggested that the NRC should also apply the small entity criteria to 10 CFR part 170 fees as well, while another commenter suggested that all small entities be granted an exemption from fees. Several commenters stated that the proposed fees favor major service companies with a large capital base and will destroy small companies.

Response. The NRC discussed the reasons for the 10 CFR part 170 inspection fee increases in the proposed rule indicating that a distribution of the changes to the inspection fees shows that inspection fees would increase by at least 100 percent for 19 percent of the licenses. The NRC pointed out that the largest increases would be for inspections conducted of those licenses authorizing byproduct material for (1) broad scope processing or manufacturing of items for commercial distribution (fee category 3A); (2) broad scope research and development (fee category 3L); and (3) broad scope medical programs (fee category 7B). Over 50 percent of the licenses would have increases of more than 50 percent. The NRC stated that the primary reason for these relatively large increases is that the average number of hours on which inspection fees are based has not been updated since 1984 (49 FR 21293; May 21, 1984). As a result, the average number of professional hours used in the current fee schedule for inspections is outdated because during the past years, the NRC's inspection program has changed significantly. In some program areas, for example, the NRC has emphasized that inspections be more thorough and in-depth so as to improve public health and safety. (58 FR 21669–21670).

These inspection fees must be updated consistent with the Chief Financial Officers Act (CFO) requirement that NRC conduct a review, on a biennial basis, of fees and other charges imposed by the Agency for its services and revise those charges to reflect the costs incurred in providing the services. Therefore, the fees established by NRC are not designed to circumvent the small entity annual fees in 10 CFR part 171 but rather are designed to recover the NRC's costs of processing individual applications for licensing actions and conducting individual inspections of licensed programs under 10 CFR part 170. The Commission notes that substantial fee reductions are given each year under 10 CFR part 171 to small entities. For example, a well logger with gross receipts of less than $3.5 million would pay under this final regulation an annual fee of $1,800 rather than $11,420. As the Commission has stated previously, the small entity annual fee reduction is to reduce but not eliminate the impact of the fees (57 FR 32720).

2. *Comment.* Commenters in the fuel facilities class of licensees indicated that a further explanation is needed of the significant increases in their fees. They pointed out that the annual fee for a high enriched facility has increased from $2.3 million in FY 1992 to $3.3 million in FY 1993. Similarly, the annual fee for a low enriched uranium facility increased from $838,250 in FY 1992 to 1,319,000 in FY 1993. The commenters questioned whether or not the increases were due to the increased staff required to provide oversight of the newly formed United States Enrichment Corporation (USEC). One commenter stated that although the United States Enrichment Corporation (USEC) is neither a licensee nor license applicant, significant resources will be expended to certify the gaseous diffusion plants and it appears that no income has been attributed to the effort associated with this on-going certification process for FY 1993.

Response. The NRC believes that it has provided sufficient information concerning the FY 1993 budget to allow effective evaluation and constructive comment concerning the budgeted costs for fuel facility licensees. In Part III, the Section-by-Section Analysis, Table VI of the proposed rule published April 23, 1993 (58 FR 21675), the NRC provided a detailed explanation of the FY 1993 budgeted costs for the fuel facility class of licensees. Table VI of this final rule also shows a listing of the budgeted costs for this class of licensees. The FY 1993 resources are determined by the NRC and approved by the Congress as those necessary to carry out the health and safety activities for this class of licensees. The specific details regarding the budget for FY 1993 are documented in the NRC's publication "Budget Estimates, Fiscal Year 1993" (NUREG–1100, Volume 8), which is available to the public. The bases for the NRC resources are thoroughly addressed by the Congress through hearings and written questions and answers. The FY 1993 NRC hearings are documented, for example, in the publication "Energy and Water Development Appropriations for FY 1993—Hearings before a Subcommittee on Appropriations, House of Representatives, One Hundred Second Congress, Second Session, Part 6". The resources resulting from this review and decision process are those necessary for NRC to implement its statutory responsibilities. Questions relating to the NRC budget approval process were also addressed in the final rules published on July 10, 1991 (56 FR 31482) and July 23, 1992 (57 FR 32696). Given the increase in the budget for the fuel facilities class of licensees, it is necessary to increase the fees to recover the cost for these activities in accordance with OBRA–90. Contrary to some commenters suggestions, this increase is not attributable to NRC activities related to USEC. With regard to USEC, the NRC has adjusted its budgeted allocation for this new and unique added responsibility to reflect planned FY 1993 USEC activities and the fact that USEC will be assessed fees. On June 25, 1993, the NRC informed USEC that the NRC will bill USEC under 10 CFR part 170 for all NRC costs incurred on or after July 1, 1993, the formation date of USEC. The fees will be assessed to USEC under fee Category 1.E. of 10 CFR Part 170.31 and will cover those activities associated with

the certification of the existing gaseous diffusion uranium enrichment facilities.

3. *Comment.* Another fuel facility licensee indicated that based on the Court's decision to grant Combustion Engineering an exemption from fees for one of its two low enriched uranium plants located in Hematite, Missouri and Windsor, Connecticut, it too deserves to be considered for an exemption because it is not operationally equivalent to the plants run by the full scope fuel fabricators since it purchases finished fuel pellets from another company and loads them into fuel rods for assembly into fuel elements. Therefore, the commenter requests that the NRC reconsider the implication of the Court's holding with respect to the disproportionate allocation of its costs under 10 CFR 171.11(d), especially as the allocation of these costs adversely impacts the licensee.

Response. The D.C. Circuit Court of Appeals decision of March 16, 1993, directed the NRC to grant an exemption from annual fees to Combustion Engineering (CE) for one of its two low enriched uranium facilities. The NRC had previously denied the exemption request from CE. The Court concluded that "the argument that the "equal fee per license" rule is "unfair and inequitable" is persuasive only on the ground that the rule produced troubling results when applied to Combustion's circumstances." The Court saw no reason for requiring the NRC to attend to that rather rare situation in the rule itself. Thus, consistent with the Court decision and 10 CFR part 171, if licensees feel that based on the circumstances of their particular situation they can make a strong case to the NRC for an exemption from the FY 1993 annual fees then they should do so. The NRC will consider such requests for exemption under the provisions of 10 CFR 171.11(d). In accordance with 10 CFR 171.11(b), such requests for exemption must be filed within 90 days from the effective date of this final rule. The filing of an exemption request does not extend the date on which the bill is payable. Only the timely payment in full ensures avoidance of interest and penalty charges. If a partial or full exemption is granted, any overpayment will be refunded.

4. *Comment.* Some uranium recovery licensees questioned and requested clarification concerning the purpose of the new categories in 10 CFR 170.31 and 171.16(d) (Category 4D) as many mill tailings facilities are already licensed to accept byproduct material for possession and disposal pursuant to NRC's Criteria 2 of 10 CFR part 40, appendix A. These licensees believe that mill tailings facilities should not be assessed the additional fees as these charges are already included and factored into Category 2.A.(2) annual fees. Assessing additional fees for licensees already paying an annual fee under Category 2.A.(2) is double charging according to the commenters. One uranium recovery licensee questioned the revision of Footnotes 1 and 7 to 10 CFR 171.16(d) contending that as presently written there is no ambiguity or question. Other uranium recovery licensees indicated that they needed more information concerning the method used to establish the annual fees because of the wide fluctuations in these fees during the past three fiscal years. Others stated that while the proposed fees for FY 1993 represented a relief from the high fees of the previous two years the proposed rule does not provide a means of reimbursement for overpayment of FY 1993 annual fees that have already been paid to the NRC by the first three quarterly billings.

Response. The NRC explained in the proposed rule its reasons for establishing a new Category 4D in its two fee regulations, 10 CFR parts 170 and 171. The new category will allow the NRC to specifically segregate and identify those licenses which authorize the receipt, possession, and disposal of byproduct material from other persons as defined by section 11.e.(2) of the Atomic Energy Act. This change is based on NRC's recognition of potential increased activity related to the disposal of 11.e.(2) byproduct material and to better distinguish this unique category of license (58 FR 21670).

The costs allocated to the uranium recovery class of licensee are for safety generic and other regulatory activities that are attributable to this class of licensees and that are not recovered by 10 CFR part 170 license and inspection fees. With respect to mill licensees in fee Category 2.A.(2) that authorize both milling operations and the disposal of section 11.e.(2) byproduct material, the same NRC regulations (e.g., 10 CFR part 40), guidance (e.g., Regulatory Guides) and policies are applicable to both the license which authorizes milling and disposal of section 11.e.(2) byproduct material and the license that only authorizes disposal of 11.e.(2) byproduct material. The 10 CFR part 40 generic safety regulations are applied in the same manner to each license in the class independent of the source material activities authorized by the licenses. Therefore, mill licenses subject to the fees in fee Category 2A of 10 CFR 170.31 and fee Category 2.A.(2) of 10 CFR 171.16 will not be assessed fees under fee Category 4D. All other licenses, that authorize the receipt, from other persons, of section 11.e(2) byproduct materials for possession and disposal will be subject to the Category 4D fees including mill licenses that authorize decommissioning, decontamination, reclamation or site restoration activities because they are not assessed annual fees under fee Category 14.

Although 10 CFR 171.19(b) specifies that the Commission will adjust the fourth quarter bill to recover the full amount of the revised annual fee, the NRC agrees that this section should be modified to more specifically cover overpayments. Accordingly, in this final rule the Commission has revised 10 CFR 171.19(b) to specifically state NRC's policy for handling those situations where the amounts collected in the first three quarters exceed the amount of the annual fee published in the final rule.

With respect to footnotes 1 and 7 in 10 CFR 171.16, the NRC indicated in the proposed rule that during the past two years many licensees have stated that although they held a valid NRC license authorizing the possession and use of special nuclear, source, or byproduct material, they were in fact either not using the material to conduct operations or had disposed of the material and no longer needed the license. In particular, this issue was raised by certain uranium mill licensees who have mills not currently in operation. In responding to licensees about this matter, the NRC has stated that annual fees are assessed based on whether a licensee holds a valid NRC license that authorizes possession and use of radioactive material. Whether or not a licensee is actually conducting operations using the material is a matter of licensee discretion. The NRC cannot control whether a licensee elects to possess and use radioactive material once it receives a license from the NRC. Therefore, the NRC reemphasizes that annual fees will be assessed based on whether a licensee holds a valid license with the NRC that authorizes possession and use of radioactive material (58 FR 21667–21668). To remove any uncertainty, the NRC is making minor clarifying amendments to 10 CFR 171.16, footnotes 1 and 7.

5. *Comment.* One commenter indicated that the methodology used in the current rule to determine inspection fees (routine and nonroutine) in 10 CFR part 170 should remain the same and that by proposing a uniform fee for both routine and nonroutine inspections, NRC believes they are equivalent. The commenter feels that the burden for inspection fees should be placed on

licensees facing nonroutine inspections and that by creating a uniform fee for both types of inspections the NRC, in turn, burdens those licensees who do not require nonroutine inspections and who are unlikely to in the future. The commenter suggests that NRC create a lower fee schedule for routine inspections and make up the difference with higher fees for nonroutine inspections.

Response. NRC indicated in the proposed rule the reason for combining the current routine and nonroutine inspection fees into a single inspection fee. NRC's review of the inspection information indicates that over 90 percent of the inspections conducted are routine inspections. As a result, for most categories there were no nonroutine inspections conducted or a very small number of nonroutine inspections were completed (58 FR 21670). Therefore, the NRC has little or no meaningful current data on which to base a separate nonroutine inspection fee. As a result, the NRC is combining routine and nonroutine inspection fees into a single fee for routine and nonroutine inspections. Fees will continue to be assessed for any nonroutine inspections conducted of licensed programs. Because the inspection fee is based primarily on hours expended to conduct routine inspections, this approach does not burden those licensees that do not require nonroutine inspections.

6. *Comment.* One commenter indicated that the NRC had improperly calculated the costs of the High Level Waste (HLW) program by not including $1.7 million in administrative costs in FY 1993 which were included in the FY 1992 calculations. The commenter contends that utilities would pay these HLW-related costs through the reactor annual fee when they have already paid for these activities through their mill/Kwhr contribution to the NWF; therefore the NRC should correct this inequity by an appropriate reduction in the power reactor surcharge.

Response. All NRC's direct costs related to the disposal of civilian high-level radioactive waste and spent fuel in the Department of Energy's geologic repository are paid for with funds appropriated from the Nuclear Waste Fund. Administrative support costs such as office space, telephones, training, supplies, and computers are not charged to the Nuclear Waste Fund. The NRC now budgets administrative support funds centrally in its Nuclear Safety Management and Support program which contains the activities of those offices which annually provide the administrative support. This is done to facilitate a more direct correlation between budget formulation and budget execution. For FY 1993, licensees have not paid for these administrative support activities through their mill/kwhr contribution to the NWF because the costs were not included in appropriations from the NWF.

7. *Comment.* Several commenters indicated that the hourly rate of $132 (a seven percent increase over 1992) is excessive in view of the fact that the increase is approximately twice the rate of inflation. These commenters noted that the rate is considerably higher than the typical industry charge-out rate for direct employees and equals or exceeds the hourly charges for senior consultants at major national consulting organizations. The commenters suggested that NRC begin to control its internal cost by, for example, combining Regional offices, reducing the research program, and reducing the inspection hours by use of Systematic Assessment of Licensee Performance (SALP). This would lower both the hourly rate and the base rate being charged, enabling the industry to reduce its nuclear program costs. Some commenters suggested that the increase in the hourly rate be limited to the increase in the rate of inflation or the Consumer Price Index (CPI) while others indicated that the NRC institute an immediate moratorium freezing fees at or below FY 1992 levels.

Response. The NRC professional hourly rate is established to recover approximately 100 percent of the Congressionally approved budget, less the appropriation from the NWF, as required by OBRA–90. Both the method and budgeted costs used by the NRC in the development of the hourly rate of $132 for FY 1993 are discussed in detail in part IV, Section-by-Section Analysis, for § 170.20 of the proposed rule (58 FR 21668) and the same section of this final rule. For example, Table II shows the direct FTEs (full time equivalents) by major program for FY 1993 and Table III shows the budgeted costs (salaries and benefits, administrative support, travel and other G&A contractual support) which must be recovered through fees assessed for the hours expended by the direct FTEs. The budgeted costs have increased $26.4 million as compared to FY 1992 levels. This increase reflects the amount required by the NRC to effectively accomplish the mission of the agency. The specific details regarding the budget for FY 1993 are documented in the NRC's publication "Budget Estimates, Fiscal Year 1993" (NUREG–1100, Volume 8), which is available to the public. Given the increase in the budget, it is necessary to increase the 1993 hourly rate to recover 100 percent of the budget as required by OBRA–90. The NRC is unable to use the CPI or other indices in the development of the NRC hourly rate or the fees to be assessed under 10 CFR parts 170 and 171 because if the hourly rate were increased by only three to four percent over the FY 1992 levels, the NRC could not meet the statutory mandate requirement of OBRA–90 to recover approximately 100 percent of the NRC budget authority through fees.

8. *Comment.* As in FY 1991 and FY 1992, commenters suggested that the NRC fee proposals violate the public trust and demean the intent of Congress. Commenters indicate that the NRC should assess fees based on the amount of throughput of material, the size of the facility, the amount or type of material possessed, the sales generated by the licensed location, the competitive condition of certain markets including the assessment of fees to Agreement States and the effect of fees on domestic and foreign competition. One commenter suggested that because the NRC has authority to allow a State to become an Agreement State, the NRC could also charge a fee to either the Agreement State or to individual firms. Another commenter indicated that the requirement that NRC recover 100 percent of its budget is wrong. It allows budgets to grow more irresponsibly than they usually do because no legislator or executive office needs to face a consequent tax problem. Another commenter suggested that it is imperative for NRC to closely examine what its regulatory program provides and how it can be provided more effectively.

Response. The issue of basing fees on the amount of material possessed, the frequency of use of the material, the size of the facilities, and market competitive positions, were addressed by the NRC in the Regulatory Flexibility Analysis in appendix A to the final rule published July 10, 1991 (56 FR 31511–31513). The Commission did not adopt that approach, and continues to believe that uniformly allocating the generic and other regulatory costs to the specific licensee to determine the amount of the annual fee is a fair, equitable, and practical way to recover its costs and that establishing reduced annual fees based on gross receipts (size) is the most appropriate approach to minimize the impact on small entities. Therefore, NRC finds no basis for altering its approach at this time. This approach was upheld by the D.C. Circuit in its March 16, 1993 decision in *Allied Signal.* With respect to Agreement States, since neither the Agreement States themselves nor the firms issued licenses by the Agreement States are

NRC licensees, they cannot be assessed annual fees under OBRA–90.

With respect to the amount of the budget, the requirement for NRC to recover 100 percent of its budget does not exempt the NRC from the normal Government review and decisionmaking process. The NRC must first submit its budget to the Office of Management and Budget. The NRC budget is then sent to Congress for review and approval. The budget process, along with the internal NRC review process, helps ensure that the NRC budget is the minimum necessary to carry out an effective regulatory program.

9. *Comment.* The American College of Nuclear Physicians/Society of Nuclear Medicine (ACNP/SNM) commented that it had submitted a petition for rulemaking to the NRC to review the FY 1991 methodology so that medical licensees could be treated like nonprofit educational institutions. The commenter believes the NRC is obligated to address the concerns raised in the petition in terms of whether the proposed fee schedule for FY 1993 is consistent with the methodology adopted in FY 1991.

Response. The NRC indicated in its final rule for FY 1992 that it is not obligated to address the concerns raised in the petition of rulemaking filed with the NRC before adopting the final rule establishing fees for FY 1992 (57 FR 32694). This continues to be the case for FY 1993 as well. The NRC had intended to handle the petition within the context of the review and evaluation of the fee program for FY 1993. However, on October 24, 1992, the Energy Policy Act was enacted by the Congress. Section 2903(c) of the Act requires the NRC to review its policy for assessment of annual fees under section 6101(c) of the Omnibus Budget Reconciliation Act of 1990, solicit public comment on the need for changes to this policy, and recommend changes in existing law to the Congress the NRC finds are needed to prevent the placement of an unfair burden on certain NRC licensees. On April 19, 1993, the NRC published a **Federal Register** Notice soliciting public comment on the need, if any, for changes to the existing fee policy and associated laws in order to comply with the requirements of the Energy Policy Act.

The NRC now intends to consider the ACNP/SNM petition as well as a second fee petition received from the American Mining Congress on February 4, 1993, in the context of the overall fee policy review as required by the Energy Policy Act. The NRC believes that this will help ensure that similar issues are treated consistently and that resolution of the petitions prior to the fee policy review would be premature given the Congressional request for future evaluation of the fee policy. The NRC expects the review to be completed by the end of calendar year 1993.

The Commission also notes that some of the medical commenters have asked that they be exempted from fees, just like the Commission has previously done for nonprofit educational institutions. As the Commission has explained earlier, the record before the Commission cannot support the continuation of the nonprofit educational exemption for FY 1993. Similarly, the Commission cannot adopt such an exemption for the medical community.

Differing Views of Commissioners Remick and DePlanque

For the reasons given below, we believe that the exemption for educational institutions, be they reactor licensees or materials licensees, should have been continued for the present on the basis of the approach suggested by the Court, and reconsidered thoroughly in the context of our response to section 2903(c) of the Energy Policy Act of 1992.

First, we do not believe that the notice of proposed rulemaking was adequate. Although the notice invited comments on the Court's "externalized benefits" approach, and on whether the exemption should be continued, the notice argued vigorously for continuing the exemption and therefore did not convey that the agency was, in effect, depending almost entirely on comments from affected licensees to provide a rationale for the exemption in FY 1993. It will be extremely difficult for many educational institutions to adjust this late in their budget cycles to what in many cases will be unexpected and significant fees.

Second, it is not entirely clear how the agency will apply the majority's two-part test for case-by-case exemptions, or what criteria will be used to determine whether a request satisfies the two-part test.

Third, no matter how the two-part test is interpreted and applied, we believe that a generic exemption based on the Court's suggested approach would be preferable to the two-part test for at least three reasons: (1) The Court's suggested approach would cover not only research reactors but also the many important materials licenses held by educational institutions; in contrast, it is not clear to what extent the two-part test can be applied to materials licensees; (2) a generic exemption would avert a situation in which every decision on an exemption request either would cause the U.S. Treasury to lose fee income or could force closure of a facility or termination of licensed activities of wide benefit; and (3) the generic exemption envisioned by the Court would obviate the need for a case-by-case, year-by-year expenditure of resources on a multitude of exemption requests.

In essence, the agency missed an opportunity to consider seriously the classic "externalized benefits" argument suggested by the Court. A general argument like the one the Court invited us to make has a long history, and the "law and economics" scholars on the Court are no doubt familiar with the argument. It is, first, that education, like national defense, the administration of justice, and a few other activities, provides large and indispensable benefits to the whole society, not just to purchasers (in this case students) of the activity, and, second, that the market cannot be expected to supply the necessary amount of education, either because the "buyers" in the education market will not know enough to put the "right" price on education, or because they will not be able to pay that price. Consistent with this argument, education in free-market economies relies to a great extent on extra-market financial support from philanthropy and government.

This general argument would have to be adapted to the specific circumstances of our licensees to justify a generic exemption. It is clear that the argument requires more than a demonstration of hardship, and more than what the Court called the "quite vague" reference to the "externalized benefits" of education. Also, the Court would have required a showing that those benefits were "exceptionally large" and that they could not be "captured in tuition or other market prices." Nevertheless, the agency, and the commenters if given reasonable notice, might have been able to build an administrative record to support a generic exemption based on the argument. The effort the agency has saved by not looking further into the issue may turn out to be a fraction of the effort the agency will expend on responding to requests for case-by-case exemptions and permission to pay in installments.

We fear the ultimate effects the majority's action may have. To take research and training reactors alone, an annual fee of $62,100 may prove to be a very substantial addition to, and possibly an unbearable burden for, the operating budgets of many of these reactors. Similar consequences may befall formerly exempt materials licensees. Consequently, the country may lose the considerable benefits which the nuclear-related activities of educational institutions provide, benefits acknowledged by the agency in the Statement of Considerations accompanying the proposed rule.

III. Final Action—Changes Included in the Final Rule

In addition to implementing the March 16, 1993, court decision, the NRC is also amending its licensing, inspection, and annual fees for FY 1993. OBRA–90 requires that the NRC recover approximately 100 percent of its FY 1993 budget authority, including the funding of its Office of the Inspector General, less the appropriations received from the NWF, by assessing licensing, inspection and annual fees. The CFO Act requires that the NRC review, on a biennial basis, the fees imposed by the agency.

For FY 1993, the NRC's budget authority is $540.0 million, of which

approximately $21.1 million has been appropriated from the NWF. Therefore, OBRA–90 requires that the NRC collect approximately $518.9 million in FY 1993 through 10 CFR part 170 licensing and inspection fees and 10 CFR part 171 annual fees. The NRC estimates that approximately $110.1 million will be recovered in FY 1993 from the fees assessed under 10 CFR part 170. The remaining $408.8 million will be recovered through the FY 1993 10 CFR part 171 annual fees.

The NRC has not changed the basic approach, policies, or methodology for calculating the 10 CFR part 170 professional hourly rate, the specific materials licensing and inspection fees in 10 CFR part 170, and the 10 CFR part 171 annual fees set forth in the final rules published July 10, 1991 (56 FR 31472) and July 23, 1992 (57 FR 32691), with the following exceptions. The method for calculating the LLW surcharge has been modified and the Commission has changed its policy with respect to the assessment of annual fees for nonprofit educational institutions. Both changes were discussed in Section II of this final rule.

Under this final rule, fees for most licenses will increase because—

(1) NRC's new budget authority has increased resulting in a corresponding increase in the professional hourly rate and, in some cases, the amount of funds budgeted for a particular class of licensee;

(2) The number of licenses in some classes has decreased as compared to FY 1992 due to license termination or consolidation resulting in fewer licensees to pay for the costs of regulatory activities not recovered under 10 CFR part 170; and

(3) The biennial review of fees and other charges required by the Chief Financial Officers Act.

The NRC contemplates that any fees to be collected as a result of this final rule will be assessed on an expedited basis to ensure collection of the required fees by September 30, 1993, as stipulated in the Public Law. Therefore, as in FY 1991 and FY 1992, the fees become effective 30 days after publication of the final rule in the **Federal Register**. The NRC will send a bill for the amount of the annual fee to the licensee or certificate, registration, or approval holder upon publication of the final rule. Payment is due on the effective date of the FY 1993 rule.

A. Amendments to 10 CFR part 170: Fees for Facilities, Materials, Import and Export Licenses, and Other Regulatory Services

Six amendments have been made to part 170. These amendments do not change the underlying basis for the regulation—that fees be assessed to applicants, persons, and licensees for specific identifiable services rendered. These revisions also comply with the guidance in the Conference Committee Report on OBRA–90 that fees assessed under the Independent Offices Appropriation Act (IOAA) recover the full cost to the NRC of all identifiable regulatory services each applicant or licensee receives.

First, the agency-wide professional hourly rate, which is used to determine the part 170 fees, is increased about seven percent from $123 per hour to $132 per hour ($229,912 per direct FTE). The rate is based on the FY 1993 direct FTEs and that portion of the FY 1993 budget that is not recovered through the appropriation from the NWF.

Second, the current part 170 licensing and inspection fees in §§ 170.21 and 170.31 for all applicants and licensees are revised to reflect both the increase in the professional hourly rate and the results of the review required by the CFO Act. To comply with the requirements of the CFO Act, the NRC has evaluated historical professional staff hours used to process a licensing action (new license, renewal, and amendment) and to conduct routine and nonroutine inspections for those licensees whose fees are based on the average cost method (flat fees).

The evaluation of the historical data shows that the average number of professional staff hours needed to complete materials licensing actions has increased in some categories. The data for the average number of professional staff hours needed to complete licensing actions were last updated in FY 1990 (55 FR 21173; May 23, 1990). Therefore, the fees for these categories must be increased to reflect the costs incurred in completing the licensing actions. For other categories, the revised fees reflect that the average number of professional staff hours per licensing action decreased. Thus, the revised average professional staff hours reflect the changes in the NRC licensing review program that have occurred since FY 1990. The licensing fees are based on the new average professional staff hours needed to process the licensing actions multiplied by the professional hourly rate for FY 1993 of $132 per hour.

In the materials inspection area, the historical data for the average number of professional staff hours necessary to complete routine and nonroutine inspections shows that inspection hours used to determine the amount of the inspection fees have increased and in many cases significantly, when compared to the hours currently used under 10 CFR part 170. The data for the average number of professional staff hours necessary to conduct routine and nonroutine inspections were last updated in FY 1984 (49 FR 21293; May 21, 1984). As a result, the average number of professional staff hours used in the current fee schedule for inspections is outdated. Since 1985, the amount of the inspection fees has been updated based only on the increased professional hourly rate. The increased average professional staff hours reflects the changes in the inspection program that have been made for safety reasons. In some program areas, for example, NRC management guidance in recent years has emphasized that inspections be more thorough, in-depth and of higher quality. The inspection fees are based on the new average professional staff hours necessary to conduct the inspections multiplied by the professional hourly rate for FY 1993 of $132 per hour.

In summary, the NRC is revising both materials licensing and inspection fees assessed under 10 CFR part 170 in order to comply both with guidance in the Conference Committee report on OBRA–90 and with the CFO Act's requirement that fees be revised to reflect the cost to the agency of providing the service.

The review of the inspection information also indicates that over 90 percent of the inspections conducted by NRC are routine inspections. As a result, for most fee categories there were no nonroutine inspections conducted or a very small number of nonroutine inspections were completed. For these reasons, the NRC, for fee purposes, is establishing a single inspection fee rather than separate fees for routine and nonroutine inspections. This inspection fee will be assessed for each routine and nonroutine inspection conducted by the NRC.

Third, a new fee category 4D is added to 10 CFR 170.31 to specifically segregate and identify licenses authorizing the receipt from other persons of byproduct material as defined in section 11.e.(2) of the Atomic Energy Act for possession and disposal. Section 11.e.(2) byproduct material is the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.

Fourth, irradiator fee Categories 3F and 3G in 10 CFR 170.31 are broadened to include underwater irradiators for irradiation of materials where the source is not exposed for irradiation purposes.

Fifth, a new section, 170.8, is added which provides that 10 CFR part 170 does not contain any information collection requirements falling within the purview of the Paperwork Reduction Act.

Sixth, the definition of *materials license* in § 170.3 is being revised to clarify that the term license, for fee purposes, includes a license, certificate, approval, registration, or other form of permission issued by the NRC.

B. Amendments to 10 CFR Part 171: Annual Fees for Reactor Operating Licenses, and Fuel Cycle Licenses and Materials Licenses, Including Holders of Certificates of Compliance, Registrations, and Quality Assurance Program Approvals and Government Agencies Licensed by NRC

Seven amendments have been made to 10 CFR part 171. First, §§ 171.15, and 171.16 are amended to revise the annual fees for FY 1993 to recover approximately 100 percent of the FY 1993 budget authority less fees collected under 10 CFR part 170 and funds appropriated from the NWF.

Second, § 171.11 is amended to revise paragraphs (a), (b), and (d). Paragraph (a) is revised to revoke the current exemption from annual fees for nonprofit educational institutions. A detailed discussion of this change in fee policy is found in Section II of this final rule. Other changes to paragraph (a) incorporate the specific statutory exemption provided in the Energy Policy Act of 1992 for certain nonpower (research) reactors. Section 2903(a)(4) of the Energy Policy Act, enacted October 24, 1992, amends Section 6101(c) of OBRA–90 to specifically exempt from 10 CFR part 171 annual fees certain Federally owned research reactors if—

(1) The reactor is used primarily for educational training and academic research purposes and;

(2) The design of the research reactor satisfies certain technical specifications set forth in the legislation.

The NRC, in implementing this provision of the Energy Policy Act, intends to limit the exemption in 10 CFR part 171 only to Federally owned research reactors.

Clarifying changes to the exemption provision for materials licensees in §§ 171.11(b) and (d) are also being made.

The NRC is revising § 171.11(b) to not only require that requests for exemption be filed with the NRC within 90 days from the effective date of the final rule but also to require that requests for clarification of or questions relating to annual fee bills must also be filed within 90 days from the date of the invoice.

The NRC is amending § 171.11(d) to clarify that the three factors for exemption for materials licensees should not be read as conjunctive requirements but rather should be read as independent considerations which can support an exemption request.

The NRC also notes that since the final FY 1992 rule was published in July 1992, licensees have continued to file requests for termination of their licenses or certificates with the NRC. Other licensees have either called or written to the NRC since the FY 1992 final rule became effective requesting further clarification and information concerning the annual fees assessed. The NRC is responding to these requests as quickly as possible but was unable to respond and take action on all of the requests prior to the end of the fiscal year on September 30, 1992. Footnote 1 of 10 CFR 171.16 provides that the annual fee is waived where a license is terminated prior to October 1 of each fiscal year. However, based on the number of requests filed, the Commission, for FY 1993, is exempting from the FY 1993 annual fees those materials licensees, and holders of certificates, registrations, and approvals who either filed for termination of their license or approval or filed for a possession only/storage license prior to October 1, 1992, and were capable of permanently ceasing licensed activities entirely by September 30, 1992.

In addition, because nonprofit educational institutions will be billed for the first time for annual fees, they are being afforded the same opportunity to file requests for termination and avoid the FY 1993 annual fee as other licensees were given when annual fees were first assessed to them in FY 1991. The NRC wishes to emphasize that nonprofit educational institutions who hold licenses, certificates, registrations, and approvals and who wish to relinquish their license(s), certificate(s), or registration(s) or obtain a Possession Only License (POL), and who are capable of permanently ceasing licensed activities entirely by September 30, 1993, must, within the 30-day period before the effective date of the rule, notify the Commission, in writing, in accordance with 10 CFR 30.36, 40.42, 50.82, and 70.38, as appropriate. Nonprofit educational institutions who hold licenses, certificates, registrations and approvals must promptly comply with the conditions for license termination in those regulations in order to be considered by the NRC for a waiver of the FY 1993 annual fee. All other licensees and approval holders who held a license or approval on October 1, 1992, are subject to the FY 1993 annual fees.

Third, § 171.19 is amended to credit the quarterly partial payments made by certain licensees in FY 1993 toward their total annual fee to be assessed or to make refunds, if necessary.

Fourth, a new category 4D is added to 10 CFR 171.16(d) to specifically segregate and identify licenses authorizing the receipt from other persons of byproduct material as defined in section 11.e.(2) of the Atomic Energy Act for possession and disposal. Section 11.e.(2) byproduct material is the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.

Fifth, additional language is added for irradiator fee Categories 3F and 3G in 10 CFR 171.16(d) to clarify that those two fee categories include underwater irradiators for irradiation of materials where the source is not exposed for irradiation purposes.

Sixth, a new § 171.8 is being added which provides that 10 CFR part 171 does not contain any information collection requirements falling within the purview of the Paperwork Reduction Act.

Seventh, the definition of materials license in § 171.3 is being revised to clarify that the term license, for fee purposes, includes a license, certificate, approval, registration or other form of permission issued by the NRC.

The NRC notes that the impact of the fees for FY 1993 on small entities has been evaluated in the Regulatory Flexibility Analysis (see appendix A to this final rule). Based on this analysis, the NRC is continuing for FY 1993 a maximum annual fee of $1,800 per licensed category for those licensees who qualify as a small entity under the NRC's size standards. The NRC is also continuing for FY 1993 the lower tier small entity annual fee of $400 per licensed category for certain materials licensees, which was established by the NRC in FY 1992 (57 FR 13625; April 17, 1992).

The 10 CFR part 171 annual fees have been determined using the same method used to determine the FY 1991 and FY 1992 annual fees except for LLW annual fees as discussed in Section II of this final rule. The amounts to be collected through annual fees in the amendments to 10 CFR part 171 are based on the increased professional hourly rate. The amendments to 10 CFR part 171 do not

change the underlying basis for 10 CFR part 171; that is, charging a class of licensees for NRC costs attributable to that class of licensees. The charges are consistent with the Congressional guidance in the Conference Committee Report on OBRA–90, which states that the "conferees contemplate that the NRC will continue to allocate generic costs that are attributable to a given class of licensee to such class" and the "conferees intend that the NRC assess the annual charge under the principle that licensees who require the greatest expenditures of the agency's resources should pay the greatest annual fee." 136 Cong. Rec., at H12692–93.

The NRC notes that many licensees have indicated during the past two years that although they held a valid NRC license authorizing the possession and use of special nuclear, source, or byproduct material, they were in fact either not using the material to conduct operations or had disposed of the material and no longer needed the license. In particular, this issue has been raised by certain uranium mill licensees who have mills not currently in operation. In responding to licensees about this matter, the NRC has stated that annual fees are assessed based on whether a licensee holds a valid NRC license that authorizes possession and use of radioactive material. Whether or not a licensee is actually conducting operations using the material is a matter of licensee discretion. The NRC cannot control whether a licensee elects to possess and use radioactive material once it receives a license from the NRC. Therefore, the NRC reemphasizes that the annual fees will be assessed based on whether a licensee holds a valid license with the NRC that authorizes possession and use of radioactive material. To remove any uncertainty, the NRC is issuing minor clarifying amendments to 10 CFR 171.16, footnotes 1 and 7.

C. FY 1993 Budgeted Costs

The FY 1993 budgeted costs by major activity to be recovered through 10 CFR parts 170 and 171 fees are shown in Table I.

TABLE I.—RECOVERY OF NRC'S FY 1993 BUDGET AUTHORITY

Recovery method	Estimated amount (dollars in millions)
Nuclear waste fund	$21.1
Part 170 (license and inspection fees)	110.1
Other receipts	.1
Part 171 (annual fees):	
Power Reactors	323.5
Nonpower Reactors	2.7
Fuel Facilities	13.7
Spent Fuel Storage	.7
Uranium Recovery	.5
Transportation	4.4
Material Users	[1] 38.6
Subtotal part 171	384.1
Costs remaining to be recovered not identified above	24.6
Total	540.0

[1] Includes $5.4 million that will not be recovered from small materials licensees because of the reduced small entity fees.

The $24.6 million identified for those activities which are not identified as either 10 CFR parts 170 or 171 or the NWF in Table I are distributed among the NRC classes of licensees as follows:

$22.1 million to operating power reactors;
$0.8 million to fuel facilities; and
$1.7 million to other materials licensees.

In addition, approximately $5.4 million must be collected as a result of continuing the $1,800 maximum fee for small entities and the lower tier small entity fee of $400 for certain licensees. In order for the NRC to recover 100 percent of its FY 1993 budget authority in accordance with OBRA–90, the NRC will recover $4.6 million of the $5.4 million from operating power reactors and the remaining $0.8 million from large entities that are not reactor licensees.

This distribution results in an additional charge (surcharge) of approximately $223,000 per operating power reactor; $61,100 for each HEU, LEU, UF_6 and each other fuel facility license; $1,100 for each materials license in a category that generates a significant amount of low level waste; and $120 for other materials licenses. When added to the base annual fee of approximately $3.0 million per reactor, this will result in an annual fee of approximately $3.2 million per operating power reactor. The total fuel facility annual fee will be between approximately $680,000 and $3.1 million. The total annual fee for materials licenses will vary depending on the fee category(ies) assigned to the license.

The additional charges not directly or solely attributable to a specific class of NRC licensees or costs not recovered from all NRC licensees on the basis of previous Commission policy decisions will be recovered from the designated classes of licensees previously identified. A further discussion and breakdown of the specific costs by major classes of licensees are shown in Section IV of this final rule.

The NRC notes that in prior litigation over NRC annual fees, the U.S. Court of Appeals for the District of Columbia Circuit concluded that the NRC "did not abuse its discretion by failing to impose the annual fee on all licensees," *Florida Power & Light Co.* v. *NRC*, 846 F.2d 765, 770 (D.C. Cir. 1988), *cert. denied*, 109 S. Ct. 1952 (1989). As noted earlier, the conferees on Pub. L. 101–508 have acknowledged the D.C. Circuit's holding that the Commission was within its legal discretion not to impose fees on all licensees.

IV. Section-by-Section Analysis

The following analysis of those sections that are affected under this final rule provides additional explanatory information. All references are to title 10, chapter I, U.S. Code of Federal Regulations.

Part 170

Section 170.3 Definitions.

The definition of materials license is being revised to clarify that the term license, for fee purposes, includes a license, certificate, approval, registration or other form of permission issued by the NRC pursuant to the regulations in 10 CFR parts 30, 32 through 36, 39, 40, 61, 70, 71 and 72. This definition is consistent with the definition of license in Section 551(8) of the Administrative Procedures Act.

Section 170.8 Information collection requirements: OMB approval.

This section, which is being added, provides that 10 CFR part 170 does not contain any information collection requirements falling within the purview of the Paperwork Reduction Act.

Section 170.20 Average cost per professional staff hour.

This section is amended to reflect an agency-wide professional staff-hour rate based on FY 1993 budgeted costs. Accordingly, the NRC professional staff-hour rate for FY 1993 for all fee categories that are based on full cost is $132 per hour, or $229,912 per direct FTE. The rate is based on the FY 1993 direct FTEs and NRC budgeted costs that are not recovered through the appropriation from the NWF. The rate is calculated using the identical method established for FY 1991 and FY 1992. The method is as follows:

1. All direct FTEs are identified in Table II by major program.

TABLE II.—ALLOCATION OF DIRECT FTEs BY MAJOR PROGRAM

Major program	Number of direct FTEs[1]
Reactor Safety & Safeguards Regulation	1,080.0
Reactor Safety Research	117.7
Nuclear Material & Low-Level Waste Safety & Safeguards Regulation	334.4
Reactor Special and Independent Reviews, Investigations, and Enforcement	69.0
Nuclear Material Management and Support	18.0
Total direct FTE	[2]1,619.1

[1] FTE (full time equivalent) is one person working for a full year. Regional employees are counted in the office of the program each supports.

[2] In FY 1993, 1,619.1 FTEs of the total 3,296 FTEs are considered to be in direct support of NRC non-NWF programs. The remaining 1,676.9 FTEs are considered overhead and general and administrative.

2. NRC FY 1993 budgeted costs are allocated, in Table III, to the following four major categories:

(a) Salaries and benefits.

(b) Administrative support.

(c) Travel.

(d) Program support.

3. Direct program support, the use of contract or other services in support of the line organization's direct program, is excluded because these costs are charged directly through the various categories of fees.

4. All other costs (i.e., Salaries and Benefits, Travel, Administrative Support, and Program Support contracts/services for G&A activities) represent "in-house" costs and are to be collected by allocating them uniformly over the total number of direct FTEs.

Using this method, which was described in the final rules published July 10, 1991 (56 FR 31472) and July 23, 1992 (57 FR 32691) and excluding direct Program Support funds, the remaining $372.3 million allocated uniformly to the direct FTEs (1,619.1) results in a rate of $229,912 per FTE for FY 1993. The Direct FTE Hourly Rate is $132 per hour (rounded to the nearest whole dollar). This rate is calculated by dividing $372.3 million by the number of direct FTEs (1,619.1 FTE) and the number of productive hours in one year (1,744 hours) as indicated in OMB Circular A–76, "Performance of Commercial Activities."

TABLE III.—FY 1993 BUDGET AUTHORITY BY MAJOR CATEGORY

[Dollars in millions]

Salaries and benefits	$254.1
Administrative support	103.8
Travel	14.1
Total nonprogram support obligations	352.0
Program support	166.9
Total Budget Authority	518.9
Less direct program support and offsetting receipts	146.6
Budget Allocated to Direct FTE	372.3
Professional Hourly Rate	132

Section 170.21 Schedule of Fees for Production and Utilization Facilities, Review of Standard Reference Design Approvals, Special Projects, Inspections, and Import and Export Licenses.

The licensing and inspection fees in this section, which are based on full-cost recovery, are revised to reflect the FY 1993 budgeted costs and to more completely recover costs incurred by the NRC in providing licensing and inspection services to identifiable recipients. The fees assessed for services provided under the schedule are based on the professional hourly rate as shown in § 170.20 and any direct program support (contractual services) cost expended by the NRC. Any professional hours expended on or after the effective date of this rule will be assessed at the FY 1993 rate shown in § 170.20. The NRC is revising the amount of the import and export licensing fees in § 170.21, facility Category K to provide for the increase in the hourly rate from $123 per hour to $132 per hour.

Footnote 2 of § 170.21 is revised to provide that for those applications currently on file and pending completion, the professional hours expended up to the effective date of this rule will be assessed at the professional rates established for the June 20, 1984, January 30, 1989, July 2, 1990, August 9, 1991, and August 24, 1992, rules as appropriate. For topical report applications currently on file which are still pending completion of the review, and for which review costs have reached the applicable fee ceiling established by the July 2, 1990, rule, the costs incurred after any applicable ceiling was reached through August 8, 1991, will not be billed to the applicant. Any professional hours expended for the review of topical report applications, amendments, revisions or supplements to a topical report on or after August 9, 1991, are assessed at the applicable rate established by § 170.20.

Section 170.31 Schedule of Fees for Materials Licenses and Other Regulatory Services, including Inspections, and Import and Export Licenses.

The licensing and inspection fees in this section are revised to recover more completely the FY 1993 costs incurred by the Commission in providing licensing and inspection services to identifiable recipients. Those flat fees, which are based on the average time to review an application or conduct an inspection, have been adjusted to reflect both the increase in the professional hourly rate from $123 per hour in FY 1992 to $132 per hour in FY 1993 and the revised average professional staff hours needed to process a licensing action (new license, renewal, and amendment) and to conduct inspections.

As previously indicated, the CFO Act requires that the NRC conduct a review, on a biennial basis, of fees and other charges imposed by the agency for its services and revise those charges to reflect the costs incurred in providing the services. Consistent with the CFO Act requirement, the NRC has completed its review of license and inspection fees assessed by the agency. The review focused on the flat fees that are charged nuclear materials licensees and applicants for licensing actions (new licenses, renewals, and amendments) and for inspections. The full cost license/inspection fees (e.g., for reactor and fuel facilities) and annual fees were not included in this biennial review because the hourly rate for full cost fees and the annual fees are reviewed and updated annually in order to recover 100 percent of the NRC budget authority.

To determine the licensing and inspection flat fees for materials licensees and applicants, the NRC uses historical data to determine the average number of professional hours required to perform a licensing action or inspection for each license category. These average hours are multiplied by the professional hourly rate of $132 per hour for FY 1993. Because the professional hourly rate is updated annually, the biennial review examined only the average number of hours per licensing action and inspection. The review indicates that the NRC needs to modify the average number of hours on which the current licensing and inspection flat fees are based in order to recover the cost of providing the licensing and inspection services. The average number of hours required for licensing actions was last reviewed and modified in 1990 (55 FR 21173; May 23, 1990). Thus the revised hours used to determine the fees for FY 1993 reflect

the changes in the licensing program that have occurred since that time, for example, new initiatives underway for certain types of licenses and management guidance that reviewers conduct more detailed reviews of certain renewal applications based on historical enforcement actions in order to insure public health and safety. The average number of hours for materials licensing actions (new licenses, renewals and amendments) have not changed significantly for most categories. For new license applications, approximately 60 percent of the materials license population have increases of less than 25 percent, with some having slight decreases. For license renewals, approximately 85 percent have increases of less than 25 percent, with some having decreases; and for amendments, approximately 90 percent have increases of less than 25 percent with some having decreases. Only 2 percent of the materials license population have increases of 100 percent or greater, for example, renewal fees for irradiator licenses (fee Categories 3F and 3G) and licenses authorizing distribution of items containing byproduct material to persons generally licensed under 10 CFR part 31 (fee Category 3J).

For materials inspections, a distribution of the changes to the inspection fees shows that inspection fees increased by at least 100 percent for 19 percent of the licenses. The largest increases are for inspections conducted of those licenses authorizing byproduct material for (1) broad scope processing or manufacturing of items for commercial distribution (fee category 3A); (2) broad scope research and development (fee category 3L); and (3) broad scope medical programs (fee category 7B). Over 50 percent of the licenses have increases of more than 50 percent. The primary reason for these relatively large increases is that the average number of hours on which inspection fees are based has not been updated since 1984 (49 FR 21293; May 21, 1984). As a result, the average number of professional hours used in the current fee schedule for inspections is outdated. During the past eight years, the NRC's inspection program has changed significantly. In some program areas, for example, NRC management guidance in recent years has emphasized that, based on historical enforcement actions, inspections be more thorough and in-depth so as to improve public health and safety.

The review of the inspection information also indicates that over 90 percent of the inspections conducted are routine inspections. As a result, for most fee categories there were no nonroutine inspections conducted or a very small number of nonroutine inspections were completed. Therefore, the NRC has little or no meaningful current data on which to base a separate nonroutine inspection fee. For these reasons, the NRC, for fee purposes, is combining routine and nonroutine inspection fees into a single fee rather than assess separate fees for routine and nonroutine inspections. This inspection fee will be assessed for each routine and nonroutine inspection conducted by the NRC.

The amounts of the licensing and inspection flat fees were rounded, as in the past, by applying standard rules of arithmetic so that the amounts rounded would be de minimus and convenient to the user. Fees that are greater than $1,000 are rounded to the nearest $100. Fees under $1,000 are rounded to the nearest $10.

The revised fees are applicable to fee categories 1.C and 1.D; 2.B and 2.C; 3.A through 3.P; 4.B through 9.D, 10.B, 15A through 15E and 16. The fees will be assessed for applications filed or inspections conducted on or after the effective date of this rule.

For those licensing, inspection, and review fees assessed that are based on full-cost recovery (cost for professional staff hours plus any contractual services), the revised hourly rate of $132, as shown in § 170.20, applies to those professional staff hours expended on or after the effective date of this rule.

Additional language has been added to irradiator fee Categories 3F and 3G in 10 CFR 170.31 to clarify that those two fee categories include underwater irradiators for irradiation of materials where the source is not exposed for irradiation purposes. Although the sources are not removed from their shielding for irradiation purposes, underwater irradiators are not self-shielded as are the small irradiators in fee Category 3E. The underwater irradiators are large irradiators, and possession limits of thousands of curies are authorized in the licenses. The design of the facility is important to the safe use of both exposed source irradiators and underwater irradiators, and 10 CFR part 36 applies the same requirements to the underwater irradiators where the source is not exposed for irradiation as to the exposed source irradiators. The average costs of conducting license reviews and performing inspections of the underwater irradiators where the source remains shielded during irradiation are similar to the costs for irradiators where the source is exposed during irradiation.

Category 4D in 10 CFR 170.31 is added to specifically segregate and identify those licenses authorizing the receipt, from other persons, of byproduct material as defined in section 11.e.(2) of the Atomic Energy Act for possession and disposal. Section 11.e.(2) byproduct material is the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content This change is based on the NRC's recognition of increased activity related to disposal of 11.e.(2) byproduct material and to better distinguish this unique category of license. Mill licenses subject to the fees in fee Category 2A of 10 CFR 170.31 will not be assessed fees under fee Category 4D. All other licenses that authorize the receipt, from other persons, of section 11.e.(2) byproduct material for possession and disposal will be subject to the Category 4D fees. Mill licenses that authorize decommissioning, decontamination, reclamation or site restoration activities and section 11.e.(2) disposal services are subject to the fees of both categories, as applicable.

Part 171

Section 171.3 Definitions.

The definition of materials license is being revised to clarify that the term license, for fee purposes, includes a license, certificate, approval, registration or other form of permission issued by the NRC pursuant to the regulations in 10 CFR parts 30, 32 through 36, 39, 40, 61, 70, 71 and 72. This definition is consistent with the definition of license in section 551(8) of the Administrative Procedures Act.

Section 171.8 Information collection requirements: OMB approval.

This section, which is being added, provides that 10 CFR part 171 does not contain any information collection requirements falling within the purview of the Paperwork Reduction Act.

Section 171.11 Exemptions.

Paragraph (a) of this section is amended to revoke the current exemption from annual fees for nonprofit educational institutions. The NRC is changing its previous policy decision because of the U.S. Court of Appeals decision on fees and the current administrative record that would comprise the basis for a continued exemption. A detailed discussion of this change in fee policy is found in Section II of this final rule.

A new paragraph is added which incorporates the specific statutory exemption provided in the Energy Policy Act of 1992 for certain nonpower (research) reactors, and paragraphs (b) and (d), the exemption section for materials licensees, have been revised.

Section 2903(a)(4) of the Energy Policy Act amends section 6101(c) of OBRA–90 to specifically exempt from 10 CFR part 171 annual fees certain Federally owned research reactors if—

(1) The reactor is used primarily for educational training and academic research purposes; and

(2) The design of the research reactor satisfies certain technical specifications set forth in the legislation. For purposes of this exemption the term "research reactor" means a nuclear reactor that—

(i) Is licensed by the Nuclear Regulatory Commission under section 104 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2134(c)) for operation at a thermal power level of 10 megawatts or less; and

(ii) If so licensed for operation at a thermal power level of more than 1 megawatt, does not contain—

(A) A circulating loop through the core in which the licensee conducts fuel experiments;

(B) A liquid fuel loading; or

(C) An experimental facility in the core in excess of 16 square inches in cross-section.

The NRC, in implementing this provision of the Energy Policy Act, is limiting the exemption in 10 CFR part 171 only to Federally owned research reactors.

The NRC, in making this required change, is not changing its exemption policy. As in FY 1991 and FY 1992, the NRC will continue a very high eligibility threshold for granting exemption requests. Therefore, the NRC strongly discourages the filing of exemption requests by licensees who have previously had exemption requests denied unless there are significantly changed circumstances.

Earlier in this notice, the NRC discussed its decision to revoke the current exemption from annual fees for nonprofit educational institutions. Nonprofit educational institutions will be subject to annual fees in FY 1993.

Exemption requests, or any requests to clarify the bill, will not, per se, extend the interest-free period for payment of the bill. Bills are due on the effective date of the final rule. Therefore, only payment will ensure avoidance of interest, administrative, and penalty charges. Any requests for exemption from the annual fees should be addressed to the USNRC, ATTN: Executive Director for Operations, Washington, DC 20555.

The NRC is revising § 171.11(b) to not only require that requests for exemption be filed with the NRC within 90 days from the effective date of the final rule establishing the annual fees but also to require that requests for clarification of or questions relating to annual fee bills must also be filed within 90 days from the date of the invoice.

Experience in considering exemption requests under § 171.11 has indicated that § 171.11(d) is ambiguous regarding whether an applicant must fulfill all, or only one, of the three factors listed in the exemption provision in order to be considered for an exemption. The NRC is amending the section to clarify that the three factors should not be read as conjunctive requirements but rather as independent considerations which can support an exemption request.

The NRC notes that section 2903(c) of the Energy Policy Act requires the NRC to review its policy for assessment of annual fees, under section 6101(c) of OBRA–90, solicit comment on the need for changes to this policy, and recommend changes in existing law to the Congress the NRC finds are needed to prevent the placement of an unfair burden on certain NRC licensees. The NRC published for public comment a separate notice in the **Federal Register** on April 19, 1993 (58 FR 21116–21121). The 90-day public comment period for this notice expires on July 19, 1993.

The NRC also notes that since the FY 1992 final rule was published in July 1992, licensees have continued to file requests for termination with the NRC. Other licensees have either called or written to the NRC since the final rule became effective requesting further clarification and information concerning the annual fees assessed. The NRC is responding to these requests as quickly as possible but it was unable to respond and take appropriate action on all of the requests before the end of the fiscal year on September 30, 1992. Footnote 1 of 10 CFR 171.16 provides that the annual fee is waived where a license is terminated prior to October 1 of each fiscal year. However, based on the number of requests filed, the NRC is exempting from the FY 1993 annual fees those licensees, and holders of certificates, registrations, and approvals who either filed for termination of their licenses or approvals or filed for possession only/storage only licenses prior to October 1, 1992, and were capable of permanently ceasing licensed activities entirely by September 30, 1992. In addition, because nonprofit educational institutions will be billed for the first time for annual fees the NRC wishes to emphasize that nonprofit educational institutions who hold licenses, certificates, registrations, and approvals and who wish to relinquish their license(s), certificate(s), or registration(s) or obtain a Possession Only License (POL), and who are capable of permanently ceasing licensed activities entirely by September 30, 1993, must, within the 30-day period before the effective date of the rule, notify the Commission, in writing, in accordance with 10 CFR 30.36, 40.42, 50.82, and 70.38, as appropriate. Nonprofit educational institutions who hold licenses, certificates, registrations, and approvals must promptly comply with the conditions for license termination in those regulations in order to be considered by the Commission for a waiver of the FY 1993 annual fee. This is being done so that nonprofit educational institutions will be afforded the same opportunity to file for termination and avoid the FY 1993 annual fee as other licensees were given when annual fees were first assessed to them in FY 1991. All other licensees and approval holders who held a license or approval on October 1, 1992, are subject to the FY 1993 annual fees.

Section 171.15 Annual Fee: Reactor operating licenses.

The annual fees in this section are revised to reflect the FY 1993 budgeted costs. Paragraphs (a), (b)(3), (c)(2), (d), and (e) are revised to comply with the requirement of OBRA–90 to recover approximately 100 percent of the NRC budget for FY 1993. Table IV shows the budgeted costs that have been allocated to operating power reactors. They have been expressed in terms of the NRC's FY 1993 programs and program elements. The resulting total base annual fee amount for power reactors is also shown.

TABLE IV.—ALLOCATION OF NRC FY 1993 BUDGET TO POWER REACTORS BASE FEES [1]

	Program element total		Allocated to power reactors	
	Program support ($,K)	Direct FTE	Program support ($,K)	Direct FTE
Reactor Safety and Safeguards Regulation (RSSR):				
Standard Reactor Designs	$6,663	111.2	$6,363	103.5
Reactor License Renewal	913	14.6	913	14.6
Reactor and Site Licensing	1,015	24.4	905	24.1
Resident Inspections	.....	204.0	.....	204.0
Region-Based Inspections	4,628	245.6	4,628	240.3
Interns (HQ and Regions)	.....	45.0	.....	45.0
Special Inspections	3,157	60.7	3,157	60.7
License Maintenance and Safety Evaluations	8,606	222.3	8,606	222.3
Plant Performance	860	55.1	860	55.1
Human Performance	6,920	61.0	6,470	56.4
Other Safety Reviews and Assistance	888	36.1	658	29.7
RSSR Program Total	.....	.....	32,650	1,055.7
Reactor Safety Research (RSR):				
Standard Reactor Designs	20,200	29.6	20,200	29.6
Reactor Aging & License Renewal	22,993	13.4	21,493	13.3
Plant Performance	2,800	3.0	2,800	3.0
Human Reliability	6,150	7.2	6,150	7.2
Reactor Accident Analysis	22,102	26.0	22,102	26.0
Safety Issue Resolution and Regulatory Improvements	11,590	38.5	11,590	38.5
RSR Program Total	.....	.....	84,335	117.6
Nuclear Material & Low Level (NMLL) NMLL (NMSS):				
Safeguards Licensing and Inspection	440	19.4	.....	.1
Threat & Event Assess./International Safeguards	1,600	12.7	1,275	6.1
Develop & Implement Inspection Activities	0	2.3	0	1.3
Uranium Recovery Licensing and Inspection	350	9.7	38	.2
Decommissioning NMLL (RES)	1,200	30.1	200	5.6
Environmental Policy and Decommissioning	1,925	9.0	825	3.8
NMLL Program Total	.....	.....	2,338	17.1
Reactor Special and Independent Reviews, Investigations, and Enforcement:				
Diagnostic Evaluations	350	7.0	350	7.0
Incident Investigations	25	1.0	25	1.0
NRC Incident Response	2,005	24.0	2,005	24.0
Operational Experience Evaluation	5,360	34.0	5,360	34.0
Committee on Review Generic Requirements	.....	2.0	.....	2.0
RSIRIE Program Total	.....	.....	7,740	68.0
Total	.....	.....	127,063	1,258.4
Total Base Fee Amount Allocated to Power Reactors (millions)	.....	.....	.....	[2] 416.4
Less Estimated Part 170 Power Reactor Fees (millions)	.....	.....	.....	92.8
Part 171 Base Fees for Operating Power Reactors (millions)	.....	.....	.....	323.6

[1] Base annual fees include all costs attributable to the operating power reactor class of licensees. The base fees do not include costs allocated to power reactors for policy reasons.

[2] Amount is obtained by multiplying the direct FTE times the rate per FTE and adding the program support funds.

Based on the information in Table IV, the base annual fees to be assessed for FY 1993 are the amounts shown in Table V below for each nuclear power operating license.

TABLE V.—BASE ANNUAL FEES FOR OPERATING POWER REACTORS

Reactors	Containment type	Annual fee
Westinghouse:		
1. Beaver Valley 1	PWR Large Dry Containment.	$2,972,000
2. Beaver Valley 2	.....do	2,972,000
3. Braidwood 1	.....do	2,972,000
4. Braidwood 2	.....do	2,972,000

TABLE V.—BASE ANNUAL FEES FOR OPERATING POWER REACTORS—Continued

Reactors	Containment type	Annual fee
5. Byron 1	do	2,972,000
6. Bryon 2	do	2,972,000
7. Callaway 1	do	2,972,000
8. Comanche Peak 1	do	2,972,000
9. Diablo Canyon 1	do	2,969,000
10. Diablo Canyon 2	do	2,969,000
11. Farley 1	do	2,972,000
12. Farley 2	do	2,972,000
13. Ginna	do	2,972,000
14. Haddam Neck	do	2,972,000
15. Harris 1	do	2,972,000
16. Indian Point 2	do	2,972,000
17. Indian Point 3	do	2,972,000
18. Kewaunee	do	2,972,000
19. Millstone 3	do	2,972,000
20. North Anna 1	do	2,972,000
21. North Anna 2	do	2,972,000
22. Point Beach 1	do	2,972,000
23. Point Beach 2	do	2,972,000
24. Prairie Island 1	do	2,972,000
25. Prairie Island 2	do	2,972,000
26. Robinson 2	do	2,972,000
27. Salem 1	do	2,972,000
28. Salem 2	do	2,972,000
29. San Onofre 1	do	2,969,000
30. Seabrook 1	do	2,972,000
31. South Texas 1	do	2,972,000
32. South Texas 2	do	2,972,000
33. Summer 1	do	2,972,000
34. Surry 1	do	2,972,000
35. Surry 2	do	2,972,000
36. Trojan	do	2,969,000
37. Turkey Point 3	do	2,972,000
38. Turkey Point 4	do	2,972,000
39. Vogtle 1	do	2,972,000
40. Vogtle 2	do	2,972,000
41. Wolf Creek 1	do	2,972,000
42. Zion 1	do	2,972,000
43. Zion 2	do	2,972,000
44.Catawba 1	PWR—Ice Condenser.	2,964,000
45. Catawba 2	do	2,964,000
46. Cook 1	do	2,964,000
47. Cook 2	do	2,964,000
48. McGuire 1	do	2,964,000
49. McGuire 2	do	2,964,000
50. Sequoyah 1	do	2,964,000
51. Sequoyah 2	do	2,964,000
Combustion Engineering:		
1. Arkansas 2	PWR Large Dry Containment.	3,013,000
2. Calvert Cliffs 1	do	3,013,000
3. Calvert Cliffs 2	do	3,013,000
4. Ft. Calhoun 1	do	3,013,000
5. Maine Yankee	do	3,013,000
6. Millstone 2	do	3,013,000
7 Palisades	do	3,013,000
8. Palo Verde 1	do	3,009,000
9. Palo Verde 2	do	3,009,000
10. Palo Verde 3	do	3,009,000
11. San Onofre 2	do	3,009,000
12. San Onofre 3	do	3,009,000
13. St. Lucie 1	do	3,013,000
14. St. Lucie 2	do	3,013,000
15. Waterford 3	do	3,013,000
Babcock & Wilcox:		
1. Arkansas 1	do	2,964,000
2. Crystal River 3	do	2,964,000
3. Davis Besse 1	do	2,964,000
4. Oconee 1	do	2,964,000
5. Oconee 2	do	2,964,000
6. Oconee 3	do	2,964,000

TABLE V.—BASE ANNUAL FEES FOR OPERATING POWER REACTORS—Continued

Reactors	Containment type	Annual fee
7. Three Mile Island 1	.....do	2,964,000
General Electric		
1. Browns Ferry 1	Mark I	2,939,000
2. Browns Ferry 2	.....do	2,939,000
3. Browns Ferry 3	.....do	2,939,000
4. Brunswick 1	.....do	2,939,000
5. Brunswick 2	.....do	2,939,000
6. Clinton 1	Mark III	3,031,000
7. Cooper	Mark I	2,939,000
8. Dresden 2	.....do	2,939,000
9. Dresden 3	.....do	2,939,000
10. Duane Arnold	.....do	2,939,000
11. Fermi 2	.....do	2,939,000
12. Fitzpatrick	.....do	2,939,000
13. Grand Gulf 1	Mark III	3,031,000
14. Hatch 1	Mark I	2,939,000
15. Hatch 2	.....do	2,939,000
16. Hope Creek 1	.....do	2,939,000
17. LaSalle 1	Mark II	2,939,000
18. LaSalle 2	.....do	2,939,000
19. Limerick 1	.....do	2,939,000
20. Limerick 2	.....do	2,939,000
21. Millstone 1	Mark I	2,939,000
22. Monticello	.....do	2,939,000
23. Nine Mile Point 1	.....do	2,939,000
24. Nine Mile Point 2	Mark II	2,939,000
25. Oyster Creek	Mark I	2,939,000
26. Peach Bottom 2	.....do	2,939,000
27. Peach Bottom 3	.....do	2,939,000
28. Perry 1	Mark III	3,031,000
29. Pilgrim	Mark I	2,939,000
30. Quad Cities 1	.....do	2,939,000
31. Quad Cities 2	.....do	2,939,000
32. River Bend 1	Mark III	3,031,000
33. Susquehanna 1	Mark II	2,939,000
34. Susquehanna 2	.....do	2,939,000
35. Vermont Yankee	Mark I	2,939,000
36. Washington Nuclear 2	Mark II	2,935,000
Other Reactors:		
1. Big Rock Point	GE Dry Containment.	2,939,000
2. Comanche Peak 2	Westinghouse PWR Dry Containment.	2,972,000
3. Three Mile Island 2	B&W PWR-Dry Containment.	2,964,000

The "Other Reactors" listed in Table V have not been included in the fee base. Historically both Big Rock Point and Three Mile Island 2 have been granted either full or partial exemptions from the annual fees. With respect to Big Rock Point, a smaller older reactor, the NRC hereby grants a partial exemption from the FY 1993 annual fees based on a request filed with the NRC in accordance with § 171.11. The NRC, in this final rule, grants a full exemption for Three Mile Island 2 because the authority to operate TMI–2 was revoked in 1979. With respect to Commanche Peak 2, the reactor received an operating license in FY 1993. In accordance with 10 CFR 171.17, Comanche Peak 2 will be billed for a prorated share of the annual fee. The total amount of $2.2 million to be paid by Big Rock Point and Comanche Peak 2 in base annual fees has been subtracted from the total amount assessed operating reactors as a surcharge.

Paragraph (b)(3) is revised to change the fiscal year references from FY 1992 to FY 1993. Paragraph (c)(2) is amended to show the amount of the surcharge for FY 1993, which is added to the base annual fee for each operating power reactor shown in Table V. This surcharge recovers those NRC budgeted costs that are not directly or solely attributable to operating power reactors, but nevertheless must be recovered to comply with the requirements of OBRA–90. The NRC has continued its previous policy decision to recover these costs from operating power reactors.

The FY 1993 budgeted costs related to the additional charge and the amount of the charge are calculated as follows:

Category of costs	FY 1993 budgeted costs (millions)
1. Activities not attributable to an existing NRC licensee or class of licensee:	
a. Reviews for DOE/DOD reactor projects, West Valley Demonstration Project, DOE Uranium Mill Tailing Radiation Control Act (UMTRCA) actions	$5.2
b. International cooperative safety program and international safeguards activities; and	8 4

Category of costs	FY 1993 budgeted costs (millions)
c. Low level waste disposal generic activities	6.7
2. Activities not assessed part 170 licensing and inspection fees or part 171 annual fees based on Commission policy:	
a. Licensing and inspection activities associated with nonprofit educational institutions; and	1.8
b. Costs not recovered from part 171 for small entities	4.6
Subtotal budgeted costs	26.7
Less amount to be assessed for partial and prorated fees under parts 171	2.2
Total budgeted costs	24.5

The annual additional charge is determined as follows:

$$\frac{\text{Total budgeted costs}}{\text{Total number of operating reactors}} = \frac{\$24.5 \text{ million}}{109.7\ ^{6}} = \$223{,}000 \text{ operating power reactor}$$

On the basis of this calculation, an operating power reactor, Beaver Valley 1, for example, would pay a base annual fee of $2,972,000 and an additional charge of $223,000 for a total annual fee of $3,195,000 for FY 1993.

Paragraph (d) is revised to show, in summary form, the amount of the total FY 1993 annual fee, including the surcharge, to be assessed for each major type of operating power reactor.

Paragraph (e) is revised to show the amount of the FY 1993 annual fee for non-power (test and research) reactors. This includes nonpower reactor licenses issued to nonprofit educational institutions. In FY 1993, $2,669,000 in costs are attributable to those commercial, nonprofit educational, and non-exempt Federal government organizations that are licensed to operate test and research reactors. Applying these costs uniformly to those nonpower reactors subject to fees results in an annual fee of $62,100 per operating license. The Energy Policy Act provided for an exemption for certain Federally owned research reactors that are used primarily for educational training and academic research purposes where the design of the reactor satisfies certain technical specifications set forth in the legislation. The NRC has granted an exemption from annual fees for FY 1992 and FY 1993 to the Veterans Administration Medical Center, Omaha, Nebraska, the U.S. Geological Survey for its reactor in Denver, Colorado and the Armed Forces Radiobiological Research Institute, Bethesda, Maryland for its research reactor.

Section 171.16 Annual fees: Materials Licensees, Holders of Certificates of Compliance, Holders of Sealed Source and Device Registrations, Holders of Quality Assurance Program Approvals, and Government agencies licensed by the NRC.

Paragraph (d) is revised to reflect the FY 1993 budgeted costs for materials licensees, including Government agencies licensed by the NRC. These fees are necessary to recover the FY 1993 generic costs totalling $57.9 million applicable to fuel facilities, uranium recovery facilities, spent fuel facilities, holders of transportation certificates and QA program approvals, and other materials licensees, including holders of sealed source and device registrations.

Tables VI and VII show the NRC program elements and resources that are attributable to fuel facilities and materials users, respectively. The costs attributable to the uranium recovery class of licensees are those associated with uranium recovery licensing and inspection. For transportation, the costs are those budgeted for transportation research, licensing, and inspection. Similarly, the budgeted costs for spent fuel storage are those for spent fuel storage research, licensing, and inspection.

TABLE VI.—ALLOCATION OF NRC FY 1993 BUDGET TO FUEL FACILITY BASE FEES [1]

	Total program element		Allocated to fuel facility	
	Program support $,K	FTE	$,K	FTE
NMLL (Research):				
Radiation Protection/Health Effects	$1,640	5.3	$350	1.1
Environmental Policy and Decommissioning	1,925	9.0	100	.4
NMLL (RES) Program Total	.....	.....	450	1.5
NMLL (NMSS):				
Fuel Facilities Lic./Inspections	2,500	51.9	1,310	33.2
Event Evaluation	.....	17.2	.....	4.3
Safeguards Licensing/Inspection	440	22.0	440	17.2
Threat and Event Assessment	1,600	14.4	123	1.7
Decommissioning	1,050	24.5	190	5.1

[6] Commanche Peak 2 which was licensed 240 days out of 365 days (0.7 year) in FY 1993 has been included in the calculation. Commanche Peak 2 will be assessed this surcharge.

TABLE VI.—ALLOCATION OF NRC FY 1993 BUDGET TO FUEL FACILITY BASE FEES [1]—Continued

	Total program element		Allocated to fuel facility	
	Program support $,K	FTE	$,K	FTE
Uranium Recovery (DAM SAFETY)	350	9.7	[illegible]	
NMLL (NMSS) Program Total			2,069	61.5
NMLL (MSIRIE):				
Incident Response		3.0		1.0
Total NMLL			2,519	64.0
Total Base Fee Amount Allocated to Fuel Facilities (millions)			[2] 17.2	
Less Part 170 Fuel Facility Fees (millions)				
Part 171 Base Fees for Fuel Facilities (millions)				13.7

[1] Base annual fee includes all costs attributable to the fuel facility class of licensees. The base fee does not include costs allocated to fuel facilities for policy reasons.
[2] Amount is obtained by multiplying the direct FTE times the rate per FTE and adding the program support funds.

TABLE VII.—ALLOCATION OF FY 1993 BUDGET TO MATERIAL USERS BASE FEES [1]

	Total		Allocated to materials users	
	Program support $,K	FTE	$,K	FTE
NMLL (RESEARCH):				
Materials Licensee Performance	[illegible]	.4	[illegible]	.4
Materials Regulatory Standards	1,000	12.1	949	11.0
Radiation Protection/Health Effects	1,640	5.3	1,290	4.2
Environmental Policy and Decommissioning	1,925	9.0	1,000	4.8
Total NMLL (RES)			$3,789	20.4
NMLL (NMSS):				
Licensing/Inspection of Materials Users	$2,300	104.1	1,200	104.1
Event Evaluation	---	17.2	[illegible]	12.8
Threat and Event Assessment	1,600	12.7	[illegible]	---
Decommissioning	1,050	24.5	760	18.4
Low level waste—on site disposal	850	27.0	225	1.9
Total NMLL (NMSS):			$2,274	137.2
NMLL (MSIRIE):				
Analysis and Evaluation of Operational Data	256	8.0	125	5.0
[4]Total NMLL Program			$6,188	162.6
Base Amount Allocated to Materials Users (millions)				[2] $43.6
Less Part 170 Material Users Fees (millions)				$5.0
Part 171 Base Fees for Material Users (millions)				$38.6

[1] Base annual fee includes all costs attributable to the materials class $of licensees. The base fee does not include costs allocated to materials licensees for policy reasons.
[2] Amount is obtained by multiplying the direct FTE times the rate per FTE and adding the program support funds.

The allocation of the NRC's $13.7 million in budgeted costs to the individual fuel facilities is based, as in FY 1991 and FY 1992, primarily on the conferees' guidance that licensees who require the greatest expenditure of NRC resources should pay the greatest annual fee. Because the two high-enriched fuel manufacturing facilities possess strategic quantities of nuclear materials, more NRC generic safety and safeguards costs (e.g., physical security) are attributable to these facilities.

Using this approach, the base annual fee for each facility is shown below.

	Annual fee
	Safeguards and safety
High enriched fuel:	
Nuclear Fuel Services	$3,079,000
Babcock and Wilcox	3,079,000
Subtotal	$6,158,000
Low Enriched Fuel:	
Siemens Nuclear Power	$1,137,000
Babcock and Wilcox	1,137,000
General Electric	1,137,000
Westinghouse	1,137,000
Combustion Engineering (Hematite)	1,137,000
Subtotal	$5,685,000
UF_6 conversion:	
Allied Signal Corp	$619,000
Sequoyah Fuels Corp	619,000
Subtotal	$1,238,000

	Annual fee
	Safeguards and safety
Other fuel facilities (5 facilities at $111,000 each)	$555,000
Total	$13,636,000

One of Combustion Engineering's (CE) low enriched uranium fuel facilities has not been included in the fee base because of the D.C. Circuit Court of Appeals decision of March 16, 1993, and the April 30, 1993 *per curiam* order which directed the Commission to grant an exemption for one of the facilities. As a result of the Court's decision, the NRC grants an exemption for one of CE's low enriched uranium fuel facilities for FY 1993. The NRC therefore has calculated the FY 1993 annual fees for the low enriched fuel category by dividing its budgeted costs among five licenses rather than six licenses as done previously.

The allocation of the costs attributable to uranium recovery is also based on the conferees' guidance that licensees who require the greatest expenditure of NRC resources should pay the greatest annual fee. It is estimated that approximately 50 percent of the $465,000 for uranium recovery is attributable to uranium mills (Class I facilities). Approximately 27 percent of the $465,000 for uranium recovery is attributable to those solution mining licensees who do not generate uranium mill tailings (Class II facilities). The remaining 23 percent is allocated to the other uranium recovery facilities (e.g. extraction of metals and rare earths). The resulting annual fees for each class of licensee are:

Class I facilities—$58,000
Class II facilities—$25,400
Other facilities—$21,100

For spent fuel storage licenses, the generic costs of $681,000 have been spread uniformly among those licensees who hold specific or general licenses for receipt and storage of spent fuel at an Independent Spent Fuel Storage Installation (ISFSI). This results in an annual fee of $136,200.

To equitably and fairly allocate the $38.6 million attributable to the approximately 7,400[7] diverse material users and registrants, the NRC has continued to base the annual fee on the part 170 application and inspection fees. Because the application and inspection fees are indicative of the complexity of the license, this approach continues to provide a proxy for allocating the costs to the diverse categories of licensees based on how much it costs NRC to regulate each category. The fee calculation also continues to consider the inspection frequency because the inspection frequency is indicative of the safety risk and resulting regulatory costs associated with the categories of licensees. In summary, the annual fee for these categories of licenses is developed as follows:

Annual Fee = (Application Fee + Inspection Fee/Inspection Priority) × Constant + (Unique Category Costs).

The constant is the multiple necessary to recover $38.6 million and is 2.3 for FY 1993. The unique costs are any special costs that the NRC has budgeted for a specific category of licensees. For FY 1993, unique costs of approximately $1.9 million were identified for the medical improvement program which is attributable to medical licensees; about $115,000 in costs were identified as being attributable to radiography licensees; and about $115,000 was identified as being attributable to irradiator licensees. The changes to materials annual fees for FY 1993 varies compared to the FY 1992 annual fees. Some of the annual fees decrease while other annual fees increase. There are three reasons for the changes in the fees compared to FY 1992. First, the FY 1993 budgeted amount attributable to materials licensees is about 12 percent higher than the FY 1992 amount. Second, the number of licensees to be assessed annual fees in FY 1993 has decreased about 4 percent (about 300 licensees) below a comparative number for FY 1992. Third, the changes in the 10 CFR part 170 license application and inspection fees cause a redistribution of the costs on which the annual fees are based, since these Part 170 fees are used as a proxy to determine the annual fees. The materials fees must be established at these levels in order to comply with the mandate of OBRA–90 to recover approximately 100 percent of the NRC's FY 1993 budget authority. A materials licensee may pay a reduced annual fee if the licensee qualifies as a small entity under the NRC's size standards and certifies that it is a small entity on NRC Form 526.

To recover the $4.4 million attributable to the transportation class of licensees, about $1.0 million will be assessed to the Department of Energy (DOE) to cover all of its transportation casks under Category 18. The remaining transportation costs for generic activities ($3.4 million) are allocated to holders of approved QA plans. The annual fee for approved QA plans is $67,400 for users and fabricators and $1,000 for users only.

The amount or range of the FY 1993 base annual fees for all materials licensees is summarized as follows:

MATERIALS LICENSES BASE ANNUAL FEE RANGES

Category of license	Annual fees
Part 70—High enriched fuel.	$3.1 million.
Part 70—Low enriched fuel.	$1.1 million.
Part 40—UF_6 conversion.	$0.6 million.
Part 40—Uranium recovery.	$21,100 to 58,100
Part 30—Byproduct Material.	$690 to $26,800.[1]
Part 71—Transportation of Radioactive Material.	$1,000 to $67,400.
Part 72—Independent Storage of Spent Nuclear Fuel.	$136,200.

[1] Excludes the annual fee for a few military "master" materials licenses of broad-scope issued to Government agencies which is $363,600.

Irradiator fee categories 3F and 3G in 10 CFR 171.16(d) are being broadened to include underwater irradiators for irradiation of materials when the source is not exposed for irradiation purposes. Although the sources are not removed from their shielding for irradiation purposes, underwater irradiators are not self-shielded as are the small irradiators in fee Category 3E. The underwater irradiators are large irradiators, and possession limits of thousands of curies are authorized in the licenses. The design of the facility is important to the safe use of both exposed source irradiators and underwater irradiators, and 10 CFR part 36 applies the same requirements to the underwater irradiators where the source is not exposed for irradiation as to the exposed source irradiators.

A new Category 4D is added to 10 CFR 171.16(d) to specifically segregate and identify those licenses which authorize the receipt, possession and disposal of byproduct material, as defined by section 11.e.(2) of the Atomic Energy Act, from other persons. This proposed change is based on the NRC's recognition of potential increased activity related to disposal of 11.e.(2) byproduct material and to better distinguish this unique category of license. Mill licenses subject to the fees in fee Category 2.A.(2) of 10 CFR 171.16 will not be assessed fees under fee Category 4D. All other licenses, that authorize the receipt, from other

[7] This includes approximately 600 nonprofit educational institutions licenses which were previously exempted from annual fees.

persons, of section 11.e(2) byproduct material for possession and disposal will be subject to the Category 4D fees including mill licenses that authorize decommissioning, decontamination, reclamation or site restoration activities since they are not assessed annual fees under fee Category 14.

Paragraph (e) is amended to establish the additional charge which is added to the base annual fees shown in paragraph (d) of this final rule. The alternative selected by the NRC for the allocation of LLW costs is discussed at some length in Section II of this notice. The Commission has modified its approach so as to access the budgeted LLW costs to two broad categories of licensees (large LLW generators and small LLW generators) based on historical disposal data. This surcharge, however, continues to be shown, for convenience, with the applicable categories in paragraph (d). Although these NRC LLW disposal regulatory activities are not directly attributable to regulation of NRC materials licensees, the costs nevertheless must be recovered in order to comply with the requirements of OBRA–90. For FY 1993, the additional charge recovers approximately 18 percent of the NRC budgeted costs of $9.2 million relating to LLW disposal generic activities from small generators which are comprised of materials licensees except fuel facilities, that dispose of LLW. The percentage distribution for FY 1993 has been refined to delete LLW disposed by Agreement State licensees from the base. The FY 1993 budgeted costs related to the additional charge for LLW and the amount of the charge are calculated as follows:

Category of costs	FY 1993 budgeted costs ($ in millions)
1. Activities not attributable to an existing NRC licensee or class of licensee, i.e., LLW disposal generic activities	9.2

Of the $9.2 million in budgeted costs shown above for LLW activities, 82 percent of the amount ($7.5 million) are allocated to the 123 large waste generators (reactors and fuel facilities) included in 10 CFR part 171 resulting in an additional charge of $61,100 per facility. Thus, the LLW charge will be $61,100 per HEU, LEU, UF_6 facility and for each of the other 5 fuel facilities. The remaining $1.7 million is allocated to the material licensees in categories that generate low level waste (1,522 licensees) as follows: $1,100 per materials license except for those in Category 17. Those licensees that generate a significant amount of low level waste for purposes of the calculation of the $1,100 surcharge are in fee Categories 1.B, 1.D, 2.C, 3.A, 3.B, 3.C, 3.L, 3.M, 3.N, 4.A, 4.B, 4.C, 4.D, 5.B, 6.A, and 7.B. The surcharge for licenses in fee Category 17, which also generate and/or dispose of low level waste, is $16,400.

Of the $5.4 million not recovered from small entities, $0.8 million is allocated to fuel facilities and other materials licensees. This results in a surcharge of $120 per category for each licensee that is not eligible for the small entity fee.

On the basis of this calculation, a fuel facility, a high enriched fuel fabrication licensee, for example, pays a base annual fee of $3,079,000 and an additional charge of $61,220 for LLW activities and small entity costs. A medical center with a broad-scope program pays a base annual fee of $26,800 and an additional charge of $1,220, for a total annual fee of $28,020 for FY 1993.

The NRC notes that many licensees have indicated during the past two years that although they held a valid NRC license authorizing the possession and use of special nuclear, source, or byproduct material, they were in fact either not using the material to conduct operations or had disposed of the material and no longer needed the license. In particular, this issue has been raised by certain uranium mill licensees who have mills not currently in operation. In responding to licensees about this matter, the NRC has stated that annual fees are assessed based on whether a licensee holds a valid NRC license that authorizes possession and use of radioactive material. Whether or not a licensee is actually conducting operations using the material is a matter of licensee discretion. The NRC cannot control whether a licensee elects to possess and use radioactive material once it receives a license from the NRC. Therefore, the NRC reemphasizes that the annual fees will be assessed based on whether a licensee holds a valid NRC license that authorizes possession and use of radioactive material. To remove any uncertainty, the NRC is issuing minor clarifying amendments to 10 CFR 171.16, footnotes 1 and 7.

Section 171.19 Payment

This section is revised to give credit for those partial payments made by certain licensees in FY 1993 toward their FY 1993 annual fees. The NRC anticipates that the first, second, and third quarterly payments for FY 1993 will have been made by operating power reactor licensees and some materials licensees before the final rule is effective. Therefore, NRC will credit payments received for those three quarters toward the total annual fee to be assessed. The NRC will adjust the fourth quarterly bill in order to recover the full amount of the revised annual fee or to make refunds, if necessary. As in FY 1992, payment of the annual fee is due on the effective date of the rule and interest accrues from the effective date of the rule. However, interest will be waived if payment is received within 30 days from the effective date of the rule.

Because nonprofit educational institutions will be required to pay annual fees for the first time, the NRC notes two of its regulations relating to payment. The first regulation is 10 CFR 171.19(a) which indicates that the fee payment shall be made by check, draft, money order or electronic fund transfer made payable to the U.S. Nuclear Regulatory Commission. Bills of $5,000 or more will indicate payment by electronic fund transfer. Payment is due on the effective date of the rule and interest shall accrue from the effective date of the rule. However, interest will be waived if payment is received within 30 days from the effective date of the rule. The second regulation relating to payments is 10 CFR 15.35. This regulation provides for payments of debts in installments provided the debtor furnishes satisfactory evidence of inability to pay a debt in one lump sum. In accordance with this regulation, all installment payment arrangements must be in writing and require the payment of interest and administrative charges.

V. Environmental Impact: Categorical Exclusion

The NRC has determined that this final rule is the type of action described in categorical exclusion 10 CFR 51.22(c)(1). Therefore, neither an environmental impact statement nor an environmental impact assessment has been prepared for the final regulation.

VI. Paperwork Reduction Act Statement

This final rule contains no information collection requirements and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.).

VII. Regulatory Analysis

With respect to 10 CFR part 170, this final rule was developed pursuant to Title V of the Independent Offices Appropriation Act of 1952 (IOAA) (31 U.S.C. 9701) and the Commission's fee

guidelines. When developing these guidelines the Commission took into account guidance provided by the U.S. Supreme Court on March 4, 1974, in its decision of *National Cable Television Association, Inc.* v. *United States,* 415 U.S. 36 (1974) and *Federal Power Commission* v. *New England Power Company,* 415 U.S. 345 (1974). In these decisions, the Court held that the IOAA authorizes an agency to charge fees for special benefits rendered to identifiable persons measured by the "value to the recipient" of the agency service. The meaning of the IOAA was further clarified on December 16, 1976, by four decisions of the U.S. Court of Appeals for the District of Columbia, *National Cable Television Association* v. *Federal Communications Commission,* 554 F.2d 1094 (D.C. Cir. 1976); *National Association of Broadcasters* v. *Federal Communications Commission,* 554 F.2d 1118 (D.C. Cir. 1976); *Electronic Industries Association* v. *Federal Communications Commission,* 554 F.2d 1109 (D.C. Cir. 1976) and *Capital Cities Communication, Inc.* v. *Federal Communications Commission,* 554 F.2d 1135 (D.C. Cir. 1976). These decisions of the Courts enabled the Commission to develop fee guidelines that are still used for cost recovery and fee development purposes.

The Commission's fee guidelines were upheld on August 24, 1979, by the U.S. Court of Appeals for the Fifth Circuit in *Mississippi Power and Light Co.* v. *U.S. Nuclear Regulatory Commission,* 601 F.2d 223 (5th Cir. 1979), *cert. denied,* 444 U.S. 1102 (1980). The Court held that—

(1) The NRC had the authority to recover the full cost of providing services to identifiable beneficiaries;

(2) The NRC could properly assess a fee for the costs of providing routine inspections necessary to ensure a licensee's compliance with the Atomic Energy Act and with applicable regulations;

(3) The NRC could charge for costs incurred in conducting environmental reviews required by NEPA;

(4) The NRC properly included the costs of uncontested hearings and of administrative and technical support services in the fee schedule;

(5) The NRC could assess a fee for renewing a license to operate a low-level radioactive waste burial site; and

(6) The NRC's fees were not arbitrary or capricious.

With respect to 10 CFR Part 171, on November 5, 1990, the Congress passed Public Law 101–508, the Omnibus Budget Reconciliation Act of 1990 (OBRA–90). For FYs 1991 through 1995, OBRA–90 requires that approximately 100 percent of the NRC budget authority be recovered through the assessment of fees. To accomplish this statutory requirement, the NRC, in accordance with § 171.13, is publishing the final amount of the FY 1993 annual fees for operating reactor licensees, fuel cycle licensees, materials licensees, and holders of Certificates of Compliance, registrations of sealed source and devices and QA program approvals, and Government agencies. OBRA–90 and the Conference Committee Report specifically state that—

(1) The annual fees be based on the Commission's FY 1993 budget of $540.0 million less the amounts collected from Part 170 fees and the funds directly appropriated from the NWF to cover the NRC's high level waste program;

(2) The annual fees shall, to the maximum extent practicable, have a reasonable relationship to the cost of regulatory services provided by the Commission; and

(3) The annual fees be assessed to those licensees that the Commission, in its discretion, determines can fairly, equitably, and practicably contribute to their payment.

Therefore, when developing the annual fees for operating power reactors the NRC continued to consider the various reactor vendors, the types of containment, and the location of the operating power reactors. The annual fees for fuel cycle licensees, materials licensees, and holders of certificates, registrations and approvals and for licenses issued to Government agencies take into account the type of facility or approval and the classes of the licensees.

10 CFR part 171, which established annual fees for operating power reactors effective October 20, 1986 (51 FR 33224; September 18, 1986), was challenged and upheld in its entirety in *Florida Power and Light Company* v. *United States,* 846 F.2d 765 (D.C. Cir. 1988), *cert. denied,* 490 U.S. 1045 (1989).

10 CFR parts 170 and 171, which established fees based on the FY 1989 budget, were also legally challenged. As a result of the Supreme Court decision in *Skinner* v. *Mid-American Pipeline Co.,* 109 S. Ct. 1726 (1989), and the denial of certiorari in *Florida Power and Light,* all of the lawsuits were withdrawn.

The NRC's FY 1991 annual fee rule was largely upheld recently by the D.C. Circuit Court of Appeals in *Allied Signal* v. *NRC,* discussed extensively earlier in this final rule.

VIII. Regulatory Flexibility Analysis

The NRC is required by the Omnibus Budget Reconciliation Act of 1990 to recover approximately 100 percent of its budget authority through the assessment of user fees. OBRA–90 further requires that the NRC establish a schedule of charges that fairly and equitably allocates the aggregate amount of these charges among licensees.

This final rule establishes the schedules of fees that are necessary to implement the Congressional mandate for FY 1993. The final rule results in an increase in the fees charged to most licensees, and holders of certificates, registrations, and approvals, including those licensees who are classified as small entities under the Regulatory Flexibility Act. The Regulatory Flexibility Analysis, prepared in accordance with 5 U.S.C. 604, is included as appendix A to this final rule.

IX. Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this final rule and that a backfit analysis is not required for this final rule. The backfit analysis is not required because these amendments do not require the modification of or additions to systems, structures, components, or design of a facility or the design approval or manufacturing license for a facility or the procedures or organization required to design, construct or operate a facility.

List of Subjects

10 CFR Part 170

Byproduct material, Import and export licenses, Intergovernmental relations, Non-payment penalties, Nuclear materials, Nuclear power plants and reactors, Source material, Special nuclear material.

10 CFR Part 171

Annual charges, Byproduct material, Holders of certificates, registrations, and approvals, Intergovernmental relations, Non-payment penalties, Nuclear materials, Nuclear power plants and reactors, Source material, Special nuclear material.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR parts 170, and 171.

PART 170—FEES FOR FACILITIES, MATERIALS, IMPORT AND EXPORT LICENSES, AND OTHER REGULATORY SERVICES UNDER THE ATOMIC ENERGY ACT OF 1954, AS AMENDED

1. The authority citation for part 170 is revised to read as follows:

Authority: 31 U.S.C. 9701; sec. 301, Pub. L. 92–314, 86 Stat. 222 (42 U.S.C. 2201w); sec. 201, 88 Stat. 1242, as amended (42 U.S.C. 5841); sec. 205, Pub. L. 101–576, 104 Stat. 2842, (31 U.S.C. 902).

§ 170.3 [Amended]

2. In § 170.3, the definition "Materials License" is revised to read as follows:

* * * * *

Materials License means a license, certificate, approval, registration, or other form of permission issued by the NRC pursuant to the regulations in 10 CFR parts 30, 32 through 36, 39, 40, 61, 70, 71 and 72.

* * * * *

3. A new § 170.8 is added to read as follows:

§ 170.8 Information collection requirements: OMB approval

This part contains no information collection requirements and therefore is not subject to the requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*).

4. Section 170.20 is revised to read as follows:

§ 170.20 Average cost per professional staff-hour.

Fees for permits, licenses, amendments, renewals, special projects, part 55 requalification and replacement examinations and tests, other required reviews, approvals, and inspections under §§ 170.21 and 170.31 that are based upon the full costs for the review or inspection will be calculated using a professional staff-hour rate equivalent to the sum of the average cost to the agency for a professional staff member, including salary and benefits, administrative support, travel, and certain program support. The professional staff-hour rate for the NRC based on the FY 1993 budget is $132 per hour.

5. In § 170.21, the introductory paragraph, Category K, and footnotes 1 and 2 to the table are revised to read as follows:

§ 170.21 Schedule of fees for production and utilization facilities, review of standard referenced design approvals, special projects, inspections, and import and export licenses.

Applicants for construction permits, manufacturing licenses, operating licenses, import and export licenses, approvals of facility standard reference designs, requalification and replacement examinations for reactor operators, and special projects and holders of construction permits, licenses, and other approvals shall pay fees for the following categories of services.

SCHEDULE OF FACILITY FEES

[See footnotes at end of table]

Facility categories and type of fees	Fees [1] [2]
* * * * *	
K. Import and export licenses:	
Licenses for the import and export only of production and utilization facilities or the import and export only of components for production and utilization facilities issued pursuant to 10 CFR Part 110:	
1. Application for import or export of reactors and other facilities and components which must be reviewed by the Commission and the Executive Branch, for example, actions under 10 CFR 110.40(b).	
Application—new license	$8,600.
Amendment	8,600.
2. Application for import or export of reactor components and initial exports of other equipment requiring Executive Branch review only, for example, those actions under 10 CFR 110.41(a)(1)–(8):	
Application—new license	5,300.
Amendment	5,300.
3. Application for export of components requiring foreign government assurances only:	
Application—new license	3,300.
Amendment	3,300.
4. Application for export or import of other facility components and equipment not requiring Commission review, Executive Branch review or foreign government assurances:	
Application—new license	1,300.
Amendment	1,300.
5. Minor amendment of any export or import license to extend the expiration date, change domestic information, or make other revisions which do not require analysis or review:	
Amendment	130.

SCHEDULE OF FACILITY FEES—Continued

[See footnotes at end of table]

[1] Fees will not be charged for orders issued by the Commission pursuant to § 2.202 of this chapter or for amendments resulting specifically from the requirements of such Commission orders. Fees will be charged for approvals issued pursuant to a specific exemption provision of the Commission's regulations under title 10 of the Code of Federal Regulations (e.g. §§ 50.12, 73.5) and any other sections now or hereafter in effect regardless of whether the approval is in the form of a license amendment, letter of approval, safety evaluation report, or other form. Fees for licenses in this schedule that are initially issued for less than full power are based on review through the issuance of a full power license (generally full power is considered 100 percent of the facility's full rated power). Thus, if a licensee received a low power license or a temporary license for less than full power and subsequently receives full power authority (by way of license amendment or otherwise), the total costs for the license will be determined through that period when authority is granted for full power operation. If a situation arises in which the Commission determines that full operating power for a particular facility should be less than 100 percent of full rated power, the total costs for the license will be at that decided lower operating power level and not at the 100 percent capacity.

[2] Full cost fees will be determined based on the professional staff time and appropriate contractual support services expended. For those applications currently on file and for which fees are determined based on the full cost expended for the review, the professional staff hours expended for the review of the application up to the effective date of this rule will be determined at the professional rates established for the June 20, 1984, January 30, 1989, July 2, 1990, August 9, 1991, and August 24, 1992, rules as appropriate. For those applications currently on file for which review costs have reached an applicable fee ceiling established by the June 20, 1984, and July 2, 1990, rules but are still pending completion of the review, the cost incurred after any applicable ceiling was reached through January 29, 1989, will not be billed to the applicant. Any professional staff-hours expended above those ceilings on or after January 30, 1989, will be assessed at the applicable rates established by § 170.20, as appropriate, except for topical reports whose costs exceed $50,000. Costs which exceed $50,000 for each topical report, amendment, revision or supplement to a topical report completed or under review from January 30, 1989, through August 8, 1991, will not be billed to the applicant. Any professional hours expended on or after August 9, 1991, will be assessed at the applicable rate established in § 170.20. In no event will the total review costs be less than twice the hourly rate shown in § 170.20.

* * * * *

6. Section 170.31 is revised to read as follows:

§ 170.31 Schedule of fees for materials licenses and other regulatory services, including inspections, and import and export licenses.

Applicants for materials licenses, import and export licenses, and other regulatory services and holders of materials licenses, or import and export licenses shall pay fees for the following categories of services. This schedule includes fees for health and safety and safeguards inspections where applicable.

SCHEDULE OF MATERIALS FEES

[See footnotes at end of table]

Category of materials licenses and type of fees [1]	Fee [2] [3]
1. Special nuclear material:	
A. Licenses for possession and use of 200 grams or more of plutonium in unsealed form or 350 grams or more of contained U–235 in unsealed form or 200 grams or more of U–233 in unsealed form. This includes applications to terminate licenses as well as licenses authorizing possession only:	
License, renewal, amendment.	Full cost.
Inspections	Full cost.
B. Licenses for receipt and storage of spent fuel at an independent spent fuel storage installation (ISFSI):	
License, renewal, amendment.	Full cost.
Inspections	Full cost.
C. Licenses for possession and use of special nuclear material in sealed sources contained in devices used in industrial measuring systems, including x-ray fluorescence analyzers: [4]	
Application—New license	$570.
Renewal	$670.
Amendment	$360.
Inspections	$660.
D. All other special nuclear material licenses, except licenses authorizing special nuclear material in unsealed form in combination that would constitute a critical quantity, as defined in § 150.11 of this chapter, for which the licensee shall pay the same fees as those for Category 1A: [4]	
Application—New license	$590.
Renewal	$420.
Amendment	$330.
Inspections	$1,100.
E. Licenses for construction and operation of a uranium enrichment facility:	
Application	$125,000.
License, renewal, amendment.	Full cost.
Inspections	Full cost.
2. Source material:	
A. Licenses for possession and use of source material in recovery operations such as milling, in-situ leaching, heap-leaching, refining uranium mill concentrates to uranium hexafluoride, ore buying stations, ion exchange facilities and in processing of ores containing source material for extraction of metals other than uranium or thorium, including licenses authorizing the possession of byproduct waste material (tailings) from source material recovery operations, as well as licenses authorizing the possession and maintenance of a facility in a standby mode:	
License, renewal, amendment.	Full cost.
Inspections	Full cost.
B. Licenses for possession and use of source material for shielding:	
Application—New license	$220.
Renewal	$160.
Amendment	$260.
Inspections	$550.
C. All other source material licenses:	
Application—New license	$2,500.
Renewal	$1,300.
Amendment	$450.
Inspections	$2,500.
3. Byproduct material:	
A. Licenses of broad scope for possession and use of byproduct material issued pursuant to parts 30 and 33 of this chapter for processing or manufacturing of items containing byproduct material for commercial distribution:	
Application—New license	$2,600.
Renewal	$1,700.
Amendment	$460.
Inspections	$9,700. [5]
B. Other licenses for possession and use of byproduct material issued pursuant to part 30 of this chapter for processing or manufacturing of items containing byproduct material for commercial distribution:	
Application—New license	$1,200.
Renewal	$2,200.
Amendment	$600.
Inspections	$3,000. [5]
C. Licenses issued pursuant to §§ 32.72, 32.73, and/or 32.74 of this chapter authorizing the processing or manufacturing and distribution or redistribution of radio pharmaceuticals, generators, reagent kits and/or sources and devices containing byproduct material:	
Application—New license	$3,500.
Renewal	$3,000.
Amendment	$480.
Inspections	$3,300.
D. Licenses and approvals issued pursuant to §§ 32.72, 32.73, and/or 32.74 of this chapter authorizing distribution or redistribution of radiopharmaceuticals, generators, reagent kits and/or sources or devices not involving processing of byproduct material:	
Application—New license	$1,300.
Renewal	$540.
Amendment	$370.
Inspections	$3,000.
E. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials in which the source is not removed from its shield (self-shielded units):	
Application—New license	$920.
Renewal	$750.
Amendment	$330.
Inspections	$1,200.
F. Licenses for possession and use of less than 10,000 curies of byproduct material in sealed sources for irradiation of materials in which the source is exposed for irradiation purposes. This category also includes underwater irradiators for irradiation of materials where the source is not exposed for irradiation purposes.	
Application—New license	$1,300.
Renewal	$1,000.
Amendment	$330.
Inspections	$1,300.
G. Licenses for possession and use of 10,000 curies or more of byproduct material in sealed sources for irradiation of materials in which the source is exposed for irradiation purposes. This category also includes underwater irradiators for irradiation of materials where the source is not exposed for irradiation purposes:	
Application—New license	$5,200.
Renewal	$4,700.
Amendment	$630.
Inspections	$4,100.

SCHEDULE OF MATERIALS FEES—Continued

[See footnotes at end of table]

Category of materials licenses and type of fees [1]	Fee [2] [3]
H. Licenses issued pursuant to Subpart A of Part 32 of this chapter to distribute items containing byproduct material that require device review to persons exempt from the licensing requirements of part 30 of this chapter, except specific licenses authorizing redistribution of items that have been authorized for distribution to persons exempt from the licensing requirements of part 30 of this chapter:	
Application—New license	$2,400.
Renewal	$2,300.
Amendment	$800.
Inspections	$1,100.
I. Licenses issued pursuant to subpart A of part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material that do not require device evaluation to persons exempt from the licensing requirements of part 30 of this chapter, except for specific licenses authorizing redistribution of items that have been authorized for distribution to persons exempt from the licensing requirements of part 30 of this chapter:	
Application—New license	$4,600.
Renewal	$2,600.
Amendment	$1,100.
Inspections	$1,000.
J. Licenses issued pursuant to subpart B of part 32 of this chapter to distribute items containing byproduct material that require sealed source and/or device review to persons generally licensed under part 31 of this chapter, except specific licenses authorizing redistribution of items that have been authorized for distribution to persons generally licensed under part 31 of this chapter:	
Application—New license	$2,100.
Renewal	$1,400.
Amendment	$370.
Inspections	$1,800.

SCHEDULE OF MATERIALS FEES—Continued

[See footnotes at end of table]

Category of materials licenses and type of fees [1]	Fee [2] [3]
K. Licenses issued pursuant to subpart B of part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material that do not require sealed source and/or device review to persons generally licensed under part 31 of this chapter, except specific licenses authorizing redistribution of items that have been authorized for distribution to persons generally licensed under part 31 of this chapter:	
Application—New license	$1,900.
Renewal	$1,400.
Amendment	$260.
Inspections	$1,000.
L. Licenses of broad scope for possession and use of byproduct material issued pursuant to parts 30 and 33 of this chapter for research and development that do not authorize commercial distribution:	
Application—New license	$4,100.
Renewal	$2,200.
Amendment	$620.
Inspections	$4,700.
M. Other licenses for possession and use of byproduct material issued pursuant to part 30 of this chapter for research and development that do not authorize commercial distribution:	
Application—New license	$1,400.
Renewal	$1,500.
Amendment	$690.
Inspections	$2,200.
N. Licenses that authorize services for other licensees, except (1) licenses that authorize only calibration and/or leak testing services are subject to the fees specified in fee Category 3P, and (2) licenses that authorize waste disposal services are subject to the fees specified in fee Categories 4A, 4B, 4C, and 4D:	
Application—New license	$1,700.
Renewal	$2,000.
Amendment	$670.
Inspections	$2,400.
O. Licenses for possession and use of byproduct material issued pursuant to part 34 of this chapter for industrial radiography operations:	
Application—New license	$3,800.
Renewal	$2,800.
Amendment	$590.
Inspections	$3,500.[5]
P. All other specific byproduct material licenses, except those in Categories 4A through 9D:	
Application—New license	$570.

SCHEDULE OF MATERIALS FEES—Continued

[See footnotes at end of table]

Category of materials licenses and type of fees [1]	Fee [2] [3]
Renewal	$670.
Amendment	$360.
Inspections	$1,500.
4. Waste disposal and processing:	
A. Licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material from other persons for the purpose of contingency storage or commercial land disposal by the licensee; or licenses authorizing contingency storage of low-level radioactive waste at the site of nuclear power reactors; or licenses for receipt of waste from other persons for incineration or other treatment, packaging of resulting waste and residues, and transfer of packages to another person authorized to receive or dispose of waste material:	
License, renewal, amendment.	Full cost.
Inspections	Full cost.
B. Licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material from other persons for the purpose of packaging or repackaging the material. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material:	
Application—New license	$3,900.
Renewal	$2,100.
Amendment	$420.
Inspections	$2,300.
C. Licenses specifically authorizing the receipt of prepackaged waste byproduct material, source material, or special nuclear material from other persons. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material:	
Application—New license	$1,500.
Renewal	$1,100.
Amendment	$250.
Inspections	$2,800.
D. Licenses specifically authorizing the receipt, from other persons, of byproduct material as defined in section 11.e.(2) of the Atomic Energy Act for possession and disposal except those licenses subject to the fees in Category 2.A.	
License, renewal, amendment.	Full cost.
Inspections	Full cost.
5. Well logging:	

SCHEDULE OF MATERIALS FEES—Continued

[See footnotes at end of table]

Category of materials licenses and type of fees[1]	Fee[2,3]
A. Licenses for possession and use of byproduct material, source material, and/or special nuclear material for well logging, well surveys, and tracer studies other than field flooding tracer studies:	
Application—New license	$3,700.
Renewal	$3,900.
Amendment	$550.
Inspections	$3,600.
B. Licenses for possession and use of byproduct material for field flooding tracer studies:	
License, renewal, amendment.	Full cost.
Inspections	$1,300.
6. Nuclear laundries:	
A. Licenses for commercial collection and laundry of items contaminated with byproduct material, source material, or special nuclear material:	
Application—New license	$4,500.
Renewal	$2,900.
Amendment	$700.
Inspections	$4,500.
7. Human use of byproduct, source, or special nuclear material:	
A. Licenses issued pursuant to parts 30, 35, 40, and 70 of this chapter for human use of byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices:	
Application—New license	$3,700.
Renewal	$1,200.
Amendment	$550.
Inspections	$2,200.
B. Licenses of broad scope issued to medical institutions or two or more physicians pursuant to parts 30, 33, 35, 40, and 70 of this chapter authorizing research and development, including human use of byproduct material, except licenses for byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices:	
Application—New license	$2,600.
Renewal	$3,500.
Amendment	$500.
Inspections	$8,600.
C. Other licenses issued pursuant to parts 30, 35, 40, and 70 of this chapter for human use of byproduct material, source material, and/or special nuclear material, except licenses for byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices:	
Application—New license	$1,100.
Renewal	$1,400.
Amendment	$500.
Inspections	$2,100.
8. Civil defense:	
A. Licenses for possession and use of byproduct material, source material, or special nuclear material for civil defense activities:	
Application—New license	$660.
Renewal	$700.
Amendment	$480.
Inspections	$1,000.
9. Device, product, or sealed source safety evaluation:	
A. Safety evaluation of devices or products containing byproduct material, source material, or special nuclear material, except reactor fuel devices, for commercial distribution:	
Application—each device	$3,700.
Amendment—each device	$1,300.
Inspections	Full cost.
B. Safety evaluation of devices or products containing byproduct material, source material, or special nuclear material manufactured in accordance with the unique specifications of, and for use by, a single applicant, except reactor fuel devices:	
Application—each device	$1,800.
Amendment—each device	$880.
Inspections	Full cost.
C. Safety evaluation of sealed sources containing byproduct material, source material, or special nuclear material, except reactor fuel, for commercial distribution:	
Application—each device	$790.
Amendment—each device	$260.
Inspections	Full cost.
D. Safety Evaluation of sealed sources containing byproduct material, source material, or special nuclear material, manufactured in accordance with the unique specifications of, and for use by, a single applicant, except reactor fuel:	
Application—each source	$400.
Amendment—each source	$130.
Inspections	Full cost.
10. Transportation of radioactive material:	
A. Evaluation of casks, packages, and shipping containers:	
Approval, Renewal, Amendment.	Full cost.
Inspections	Full cost.
B. Evaluation of 10 CFR part 71 quality assurance programs:	
Application—Approval	$370.
Renewal	$280.
Amendment	$320.
Inspections	Full cost.
11. Review of standardized spent fuel facilities:	
Approval, Renewal, Amendment.	Full cost.
Inspections	Full cost.
12. Special projects:	
Approvals and preapplication/licensing activities.	Full cost.
Inspections	Full cost.
13. A Spent fuel storage cask Certificate of Compliance:	
Approvals	Full cost.
Amendments, revisions, and supplements.	Full cost.
Reapproval	Full cost.
B. Inspections related to spent fuel storage cask Certificate of Compliance.	Full cost.
C. Inspections related to storage of spent fuel under § 72.210 of this chapter.	Full cost.
14. Byproduct, source, or special nuclear material licenses and other approvals authorizing decommissioning, decontamination, reclamation, or site restoration activities pursuant to 10 CFR parts 30, 40, 70, and 72 of this chapter:	
Approval, Renewal, Amendment.	Full cost.
Inspections	Full cost.
15. Import and Export licenses:	
Licenses issued pursuant to 10 CFR part 110 of this chapter for the import and export only of special nuclear material, source material, byproduct material, heavy water, tritium, or nuclear grade graphite.	
A. Application for import or export of HEU and other materials which must be reviewed by the Commission and the Executive Branch, for example, those actions under 10 CFR 110.40(b):	
Application—New license	$8,600.
Amendment	$8,600.
B. Application for import or export of special nuclear material, heavy water, nuclear grade graphite, tritium, and source material, and initial exports of materials requiring Executive Branch only, for example, those actions under 10 CFR 110.41(a)(2)–(8):	
Application—New license	$5,300.
Amendment	$5,300.
C. Application for export of routine reloads of LEU reactor fuel and exports of source material requiring foreign government assurances only.	
Application—New license	$3,300.
Amendment	$3,300.

SCHEDULE OF MATERIALS FEES—Continued

[See footnotes at end of table]

Category of materials licenses and type of fees[1]	Fee[2,3]
D. Application for export or import of other materials not requiring Commission review, Executive Branch review or foreign government assurances:	
Application—New license	$1,300.
Amendment	$1,300.
E. Minor amendment of any export or import license to extend the expiration date, change domestic information or make other revisions which do not require analysis or review:	
Amendment	$130.
16. Reciprocity:	
Agreement State licensees who conduct activities in a non-Agreement State under the reciprocity provisions of 10 CFR 150.20:	
Application (each filing of form 241).	$700.
Renewal	N/A.
Amendment	N/A.
Inspections	(e)

[1] *Types of fees*—Separate charges as shown in the schedule will be assessed for preapplication consultations and reviews and applications for new licenses and approvals, issuance of new licenses and approvals, amendments and renewals to existing licenses and approvals, safety evaluations of sealed sources and devices, and inspections. The following guidelines apply to these charges:

(a) *Application fees*—Applications for new materials licenses and approvals; applications to reinstate expired licenses and approvals except those subject to fees assessed at full cost; and applications filed by Agreement State licensees to register under the general license provisions of 10 CFR 150.20, must be accompanied by the prescribed application fee for each category, except that: (1) Applications for licenses covering more than one fee category of special nuclear material or source material must be accompanied by the prescribed application fee for the highest fee category; and (2) applications for licenses under Category 1E must be accompanied by an application fee of $125,000.

(b) *License/approval/review fees*—Fees for applications for new licenses and approvals and for preapplication consultations and reviews subject to full cost fees (fee Categories 1A, 1B, 1E, 2A, 4A, 4D, 5B, 10A, 11, 12, 13A, and 14) are due upon notification by the Commission in accordance with § 170.12(b), (e), and (f).

(c) *Renewal/reapproval fees*—Applications for renewal of licenses and approvals must be accompanied by the prescribed renewal fee for each category, except that fees for applications for renewal of licenses and approvals subject to full cost fees (fee Categories 1A, 1B, 1E, 2A, 4A, 4D, 5B, 10A, 11, 12, 13A, and 14) are due upon notification by the Commission in accordance with § 170.12(d).

(d) *Amendment fees*—

(1) Applications for amendments to licenses and approvals, except those subject to fees assessed at full costs, must be accompanied by the prescribed amendment fee for each license affected. An application for an amendment to a license or approval classified in more than one fee category must be accompanied by the prescribed amendment fee for the category affected by the amendment unless the amendment is applicable to two or more fee categories in which case the amendment fee for the highest fee category would apply. For those licenses and approvals subject to full costs (fee Categories 1A, 1B, 1E, 2A, 4A, 4D, 5B, 10A, 11, 12, 13A, and 14), amendment fees are due upon notification by the Commission in accordance with § 170.12(c).

(2) An application for amendment to a materials license or approval that would place the license or approval in a higher fee category or add a new fee category must be accompanied by the prescribed application fee for the new category.

(3) An application for amendment to a license or approval that would reduce the scope of a licensee's program to a lower fee category must be accompanied by the prescribed amendment fee for the lower fee category.

(4) Applications to terminate licenses authorizing small materials programs, when no dismantling or decontamination procedure is required, are not subject to fees.

(e) *Inspection fees*—Although a single inspection fee is shown in the regulation, separate charges will be assessed for each routine and nonroutine inspection performed, including inspections conducted by the NRC of Agreement State licensees who conduct activities in non-Agreement States under the reciprocity provisions of 10 CFR 150.20. Inspections resulting from investigations conducted by the Office of Investigations and nonroutine inspections that result from third-party allegations are not subject to fees. If a licensee holds more than one materials license at a single location, a fee equal to the highest fee category covered by the licenses will be assessed if the inspections are conducted at the same time, unless the inspection fees are based on the full cost to conduct the inspection. The fees assessed at full cost will be determined based on the professional staff time required to conduct the inspection multiplied by the rate established under § 170.20 to which any applicable contractual support services costs incurred will be added. Licenses covering more than one category will be charged a fee equal to the highest fee category covered by the license. Inspection fees are due upon notification by the Commission in accordance with § 170.12(g). See Footnotes 5 and 6 for other inspection notes.

[2] Fees will not be charged for orders issued by the Commission pursuant to 10 CFR 2.202 or for amendments resulting specifically from the requirements of such Commission orders. However, fees will be charged for approvals issued pursuant to a specific exemption provision of the Commission's regulations under title 10 of the Code of Federal Regulations (e.g., 10 CFR 30.11, 40.14, 70.14, 73.5, and any other sections now or hereafter in effect) regardless of whether the approval is in the form of a license amendment, letter of approval, safety evaluation report, or other form. In addition to the fee shown, an applicant may be assessed an additional fee for sealed source and device evaluations as shown in Categories 9A through 9D.

[3] Full cost fees will be determined based on the professional staff time and appropriate contractual support services expended. For those applications currently on file and for which fees are determined based on the full cost expended for the review, the professional staff hours expended for the review of the application up to the effective date of this rule will be determined at the professional rates established for the June 20, 1984, January 30, 1989, July 2, 1990, August 9, 1991, and August 24, 1992, rules, as appropriate. For those applications currently on file for which review costs have reached an applicable fee ceiling established by the June 20, 1984, and July 2, 1990 rules, but are still pending completion of the review, the cost incurred after any applicable ceiling was reached through January 29, 1989, will not be billed to the applicant. Any professional staff-hours expended above those ceilings on or after January 30, 1989, will be assessed at the applicable rates established by § 170.20, as appropriate, except for topical reports whose costs exceed $50,000. Costs which exceed $50,000 for each topical report, amendment, revision, or supplement to a topical report completed or under review from January 30, 1989, through August 8, 1991, will not be billed to the applicant. Any professional hours expended on or after August 9, 1991, will be assessed at the applicable rate established in § 170.20. In no event will the total review costs be less than twice the hourly rate shown in § 170.20.

[4] Licensees paying fees under Categories 1A, 1B, and 1E are not subject to fees under Categories 1C and 1D for sealed sources authorized in the same license except in those instances in which an application deals only with the sealed sources authorized by the license. Applicants for new licenses or renewal of existing licenses that cover both byproduct material and special nuclear material in sealed sources for use in gauging devices will pay the appropriate application or renewal fee for fee Category 1C only.

[5] For a license authorizing shielded radiographic installations or manufacturing installations at more than one address, a separate fee will be assessed for inspection of each location, except that if the multiple installations are inspected during a single visit, a single inspection fee will be assessed.

[6] Fees as specified in appropriate fee categories in this section.

PART 171—ANNUAL FEES FOR REACTOR OPERATING LICENSES, AND FUEL CYCLE LICENSES AND MATERIALS LICENSES, INCLUDING HOLDERS OF CERTIFICATES OF COMPLIANCE, REGISTRATIONS, AND QUALITY ASSURANCE PROGRAM APPROVALS AND GOVERNMENT AGENCIES LICENSED BY THE NRC

7. The authority citation for part 171 is revised to read as follows:

Authority: Sec. 7601, Pub. L. 99–272, 100 Stat. 146, as amended by sec. 5601, Pub. L.

100–203, 101 Stat. 1330, as amended by sec. 3201, Pub. L. 101–239, 103 Stat. 2106 as amended by sec. 6101, Pub. L. 101–508, 104 Stat. 1388, (42 U.S.C. 2213); sec. 301, Pub. L. 92–314, 86 Stat. 222 (42 U.S.C. 2201(w)); sec. 201, 88 Stat. 1242 as amended (42 U.S.C. 5841); sec. 2903, Pub. L. 102–486, 106 Stat. 3125, (42 U.S.C. 2214 note).

§ 171.5 [Amended]

8. In § 171.5, the definition "Materials License" is revised to read as follows:

* * * * *

Materials License means a license, certificate, approval, registration, or other form of permission issued by the NRC pursuant to the regulations in 10 CFR parts 30, 32 through 36, 39, 40, 61, 70, 71 and 72.

* * * * *

9. A new § 171.8 is added as follows:

§ 171.8 Information collection requirements: OMB approval

This part contains no information collection requirements and therefore is not subject to the requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. 3401 *et seq.*).

10. In § 171.11, paragraph (a), (b), and (d) are revised to read as follows:

§ 171.11 Exemptions.

(a) An annual fee is not required for Federally owned research reactors used primarily for educational training and academic research purposes. For purposes of this exemption, the term research reactor means a nuclear reactor that—

(1) Is licensed by the Nuclear Regulatory Commission under Section 104 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2134(c)) for operation at a thermal power level of 10 megawatts or less; and

(2) If so licensed for operation at a thermal power level of more than 1 megawatt, does not contain—

(i) A circulating loop through the core in which the licensee conducts fuel experiments;

(ii) A liquid fuel loading; or

(iii) An experimental facility in the core in excess of 16 square inches in cross-section.

(b) The Commission may, upon application by an interested person or on its own initiative, grant an exemption from the requirements of this part that it determines is authorized by law or otherwise in the public interest. Requests for exemption must be filed with the NRC within 90 days from the effective date of the final rule establishing the annual fees for which the exemption is sought in order to be considered. Absent extraordinary circumstances, any exemption requests filed beyond that date will not be considered. The filing of an exemption request does not extend the date on which the bill is payable. Only timely payment in full ensures avoidance of interest and penalty charges. If a partial or full exemption is granted, any overpayment will be refunded. Requests for clarification of or questions relating to an annual fee bill must also be filed within 90 days from the date of the initial invoice to be considered.

* * * * *

(d) The Commission may grant a materials licensee an exemption from the annual fee if it determines that the annual fee is not based on a fair and equitable allocation of the NRC costs. The following factors must be fulfilled as determined by the Commission for an exemption to be granted:

(1) There are data specifically indicating that the assessment of the annual fee will result in a significantly disproportionate allocation of costs to the licensee, or class of licensees; or

(2) There is clear and convincing evidence that the budgeted generic costs attributable to the class of licensees are neither directly or indirectly related to the specific class of licensee nor explicitly allocated to the licensee by Commission policy decisions; or

(3) Any other relevant matter that the licensee believes shows that the annual fee was not based on a fair and equitable allocation of NRC costs.

11. In § 171.15, paragraphs (a), (b)(3), (c)(2), (d), and (e) are revised to read as follows:

§ 171.15 Annual fees: Reactor operating licenses.

(a) Each person licensed to operate a power, test or research reactor shall pay the annual fee for each unit for which the person holds an operating license at any time during the Federal FY in which the fee is due, except for those test and research reactors exempted in § 171.11(a).

(b) * * *

(3) Generic activities required largely for NRC to regulate power reactors, e.g., updating part 50 of this chapter, or operating the Incident Response Center. The base FY 1993 annual fees for each operating power reactor subject to fees under this section and which must be collected before September 30, 1993, are shown in paragraph (d) of this section.

(c) * * *

(2) The FY 1993 surcharge to be added to each operating power reactor is $223,000. This amount is calculated by dividing the total cost for these activities ($24.5 million) by the number of operating power reactors (109.7).

(d) The FY 1993 part 171 annual fees for operating power reactors are as follows:

PART 171 ANNUAL FEES BY REACTOR CATEGORY [1]

[Fees in thousands]

Reactor vendor	Number	Base fee	Added charge	Total fee	Estimated collections
Babcock/Wilcox	7	$2,964	$223	$3,187	$22,309
Combustion Eng	15	3,013	223	3,236	48,540
GE Mark I	24	2,939	223	3,162	75,888
GE Mark II	8	2,939	223	3,162	25,296
GE Mark III	4	3,031	223	3,254	13,016
Westinghouse	51	2,972	223	3,195	162,945
Totals	109				$347,994

[1] Fees assessed will vary for plants West of the Rocky Mountains and for Westinghouse plants with ice condensers.

(e) The annual fees for licensees authorized to operate a nonpower (test and research) reactor licensed under part 50 of this chapter except for those reactors exempted from fees under § 171.11(a), are as follows:

Research reactor.....$62,100
Test reactor.....$62,100

* * * * *

12. In § 171.16, the introductory text of paragraph (c) and paragraphs (c)(4), (d), and (e) are revised to read as follows:

§ 171.16 Annual Fees: Materials Licensees, Holders of Certificates of Compliance, Holders of Sealed Source and Device Registrations, Holders of Quality Assurance Program Approvals and Government Agencies Licensed by the NRC.

* * * * *

(c) A licensee who is required to pay an annual fee under this section may qualify as a small entity. If a licensee qualifies as a small entity and provides the Commission with the proper certification, the licensee may pay reduced annual fees for FY 1993 as follows:

Small businesses and small not-for-profit organizations (gross annual receipts)	Maximum annual fee per licensed category
$250,000 to $3.5 million	$1,800
Less than $250,000	400
Private Practice Physicians (Gross Annual Receipts)	
$250,000 to $1.0 million	1,800
Less than $250,000	400
Small Governmental Jurisdictions (Including Publicly Supported Educational Institutions) (Population)	
20,000 to 50,000	1,800
Less than 20,000	400
Educational institutions that are not state or publicly supported, and have 500 Employees or Less	1,800

* * * * *

(4) The maximum annual fee (base annual fee plus surcharge) a small entity is required to pay for FY 1993 is $1,800 for each category applicable to the license(s).

(d) The FY 1993 annual fees for materials licensees and holders of certificates, registrations or approvals subject to fees under this section are as follows:

SCHEDULE OF MATERIALS ANNUAL FEES AND FEES FOR GOVERNMENT AGENCIES LICENSED BY NRC

[See footnotes at end of table]

Category of materials licenses	License No.	Docket No.	Annual fees[1 2 3]
1. Special nuclear material:			
A.(1) Licenses for possession and use of U–235 or plutonium for fuel fabrication activities			
High Enriched Fuel			
Babcock and Wilcox	SNM–42	70–27	$3,079,000
Nuclear Fuel Services	SNM–124	70–143	3,079,000
Low Enriched Fuel			
B&W Fuel Company	SNM–1168	70–1201	1,137,000
Combustion Engineering (Hematite)	SNM–33	70–36	1,137,000
General Electric Company	SNM–1097	70–1113	1,137,000
Siemens Nuclear Power	SNM–1227	70–1257	1,137,000
Westinghouse Electric Co.	SNM–1107	70–1151	1,137,000
Surcharge			61,220
A.(2) All other special nuclear materials licenses not included in 1.A.(1) above for possession and use of 200 grams or more of plutonium in unsealed form or 350 grams or more of contained U–235 in unsealed form or 200 grams or more of U–233 in unsealed form.			111,000
Surcharge			61,220
B. Licenses for receipt and storage of spent fuel at an independent spent fuel storage installation (ISFSI).			136,200
Surcharge			1,220
C. Licenses for possession and use of special nuclear material in sealed sources contained in devices used in industrial measuring systems, including x-ray fluorescence analyzers.			1,600
Surcharge			120
D. All other special nuclear material licenses, except licenses authorizing special nuclear material in unsealed form in combination that would constitute a critical quantity, as defined in § 150.11 of this chapter, for which the licensee shall pay the same fees as those for Category 1.A.(2)..			1,900
Surcharge			1,220
E. Licenses for the operation of a uranium enrichment facility.			N/A[11]
2. Source material:			
A.(1) Licenses for possession and use of source material for refining uranium mill concentrates to uranium hexafluoride.			619,000
Surcharge			61,220
(2) Licenses for possession and use of source material in recovery operations such as milling, in-situ leaching, heap-leaching, ore buying stations, ion exchange facilities and in processing of ores containing source material for extraction of metals other than uranium or thorium, including licenses authorizing the possession of byproduct waste material (tailings) from source material recovery operations, as well as licenses authorizing the possession and maintenance of a facility in a standby mode			
Class I facilities[4]			58,100
Class II facilities[4]			25,400
Other facilities			21,100
Surcharge			120
B. Licenses which authorize only the possession, use and/or installation of source material for shielding.			690
Surcharge			120
C. All other source material licenses			7,700
Surcharge			1,220
3. Byproduct material:			
A. Licenses of broad scope for possession and use of byproduct material issued pursuant to parts 30 and 33 of this chapter for processing or manufacturing of items containing byproduct material for commercial distribution.			17,200
Surcharge			1,220
B. Other licenses for possession and use of byproduct material issued pursuant to part 30 of this chapter for processing or manufacturing of items containing byproduct material for commercial distribution.			5,100
Surcharge			1,220
C. Licenses issued pursuant to §§ 32.72, 32.73, and/or 32.74 of this chapter authorizing the processing or manufacturing and distribution or redistribution of radiopharmaceuticals, generators, reagent kits and/or sources and devices containing byproduct material. This category also includes the possession and use of source material for shielding authorized pursuant to part 40 of this chapter when included on the same license.			10,600
Surcharge			1,220

SCHEDULE OF MATERIALS ANNUAL FEES AND FEES FOR GOVERNMENT AGENCIES LICENSED BY NRC—Continued

[See footnotes at end of table]

Category of materials licenses	License No.	Docket No.	Annual fees [1] [2] [3]
D. Licenses and approvals issued pursuant to §§ 32.72, 32.73, and/or 32.74 of this chapter authorizing distribution or redistribution of radiopharmaceuticals, generators, reagent kits and/or sources or devices not involving processing of byproduct material. This category also includes the possession and use of source material for shielding authorized pursuant to part 40 of this chapter when included on the same license.	.....	.....	5,300
Surcharge	.....	.....	120
E. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials in which the source is not removed from its shield (self-shielded units).	.....	.....	3,500
Surcharge	.....	.....	120
F. Licenses for possession and use of less than 10,000 curies of byproduct material in sealed sources for irradiation of materials in which the source is exposed for irradiation purposes. This category also includes underwater irradiators for irradiation of materials in which the source is not exposed for irradiation purposes.	.....	.....	4,500
Surcharge	.....	.....	120
G. Licenses for possession and use of 10,000 curies or more of byproduct material in sealed sources for irradiation of materials in which the source is exposed for irradiation purposes. This category also includes underwater irradiators for irradiation of materials in which the source is not exposed for irradiation purposes.	.....	.....	21,900
Surcharge	.....	.....	120
H. Licenses issued pursuant to subpart A of part 32 of this chapter to distribute items containing byproduct material that require device review to persons exempt from the licensing requirements of part 30 of this chapter, except specific licenses authorizing redistribution of items that have been authorized for distribution to persons exempt from the licensing requirements of part 30 of this chapter.	.....	.....	6,000
Surcharge	.....	.....	120
I. Licenses issued pursuant to subpart A of part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material that do not require device evaluation to persons exempt from the licensing requirements of part 30 of this chapter, except for specific licenses authorizing redistribution of items that have been authorized for distribution to persons exempt from the licensing requirements of part 30 of this chapter.	.....	.....	11,100
Surcharge	.....	.....	120
J. Licenses issued pursuant to subpart B of part 32 of this chapter to distribute items containing byproduct material that require sealed source and/or device review to persons generally licensed under part 31 of this chapter, except specific licenses authorizing redistribution of items that have been authorized for distribution to persons generally licensed under part 31 of this chapter.	.....	.....	5,900
Surcharge	.....	.....	120
K. Licenses issued pursuant to subpart B of part 31 of this chapter to distribute items containing byproduct material or quantities of byproduct material that do not require sealed source and/or device review to persons generally licensed under part 31 of this chapter, except specific licenses authorizing redistribution of items that have been authorized for distribution to persons generally licensed under part 31 of this chapter.	.....	.....	5,200
Surcharge	.....	.....	120
L. Licenses of broad scope for possession and use of byproduct material issued pursuant to part 30 and 33 of this chapter for research and development that do not authorize commercial distribution.	.....	.....	13,100
Surcharge	.....	.....	1,220
M. Other licenses for possession and use of byproduct material issued pursuant to part 30 of this chapter for research and development that do not authorize commercial distribution.	.....	.....	4,500
Surcharge	.....	.....	1,220
N. Licenses that authorize services for other licensees, except (1) licenses that authorize only calibration and/or leak testing services are subject to the fees specified in fee Category 3P, and (2) licenses that authorize waste disposal services are subject to the fees specified in fee Categories 4A, 4B, 4C, and 4D.	.....	.....	5,300
Surcharge	.....	.....	1,220
O. Licenses for possession and use of byproduct material issued pursuant to part 34 of this chapter for industrial radiography operations. This category also includes the possession and use of source material for shielding authorized pursuant to part 40 of this chapter when authorized on the same license.	.....	.....	17,400
Surcharge	.....	.....	120
P. All other specific byproduct material licenses, except those in Categories 4A through 9D.	.....	.....	2,000

SCHEDULE OF MATERIALS ANNUAL FEES AND FEES FOR GOVERNMENT AGENCIES LICENSED BY NRC—Continued

[See footnotes at end of table]

Category of materials licenses	License No.	Docket No.	Annual fees[1][2][3]
Surcharge			120
4. Waste disposal and processing:			
A. Licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material from other persons for the purpose of contingency storage or commercial land disposal by the licensee; or licenses authorizing contingency storage of low-level radioactive waste at the site of nuclear power reactors; or licenses for receipt of waste from other persons for incineration or other treatment, packaging of resulting waste and residues, and transfer of packages to another person authorized to receive or dispose of waste material.			[5]115,000
Surcharge			1,220
B. Licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material from other persons for the purpose of packaging or repackaging the material. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.			14,300
Surcharge			1,220
C. Licenses specifically authorizing the receipt of prepackaged waste byproduct material, source material, or special nuclear material from other persons. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.			6,700
Surcharge			1,220
D. Licenses specifically authorizing the receipt, from other persons, of byproduct material as defined in Section 11.e.(2) of the Atomic Energy Act for possession and disposal, except those licenses subject to the fees in Category 2.A.(2).			7,700
Surcharge			120
5. Well logging:			
A. Licenses for possession and use of byproduct material, source material, and/or special nuclear material for well logging, well surveys, and tracer studies other than field flooding tracer studies.			11,300
Surcharge			120
B. Licenses for possession and use of byproduct material for field flooding tracer studies.			13,700
Surcharge			1,220
6. Nuclear laundries:			
A. Licenses for commercial collection and laundry of items contaminated with byproduct material, source material, or special nuclear material.			13,900
Surcharge			1,220
7. Human use of byproduct, source, or special nuclear material:			
A. Licenses issued pursuant to parts 30, 35, 40, and 70 of this chapter for human use of byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices. This category also includes the possession and use of source material for shielding when authorized on the same license.			14,600
Surcharge			120
B. Licenses of broad scope issued to medical institutions or two or more physicians pursuant to parts 30, 33, 35, 40 and 70 of this chapter authorizing research and development, including human use of byproduct material except licenses for byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices. This category also includes the possession and use of source material for shielding when authorized on the same license.[9].			26,800
Surcharge			1,220
C. Other licenses issued pursuant to parts 30, 35, 40, and 70 of this chapter for human use of byproduct material, source material and/or special nuclear material except licenses for byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices. This category also includes the possession and use of source material for shielding when authorized on the same license.[9].			5,100
Surcharge			120
8. Civil defense:			
A. Licenses for possession and use of byproduct material, source material, or special nuclear material for civil defense activities.			1,900
Surcharge			120
9. Device, product, or sealed source safety evaluation:			
A. Registrations issued for the safety evaluation of devices or products containing byproduct material, source material, or special nuclear material, except reactor fuel devices, for commercial distribution.			8,500
Surcharge			120

SCHEDULE OF MATERIALS ANNUAL FEES AND FEES FOR GOVERNMENT AGENCIES LICENSED BY NRC—Continued

[See footnotes at end of table]

Category of materials licenses	License No.	Docket No.	Annual fees [1] [2] [3]
B. Registrations issued for the safety evaluation of devices or products containing byproduct material, source material, or special nuclear material manufactured in accordance with the unique specifications of, and for use by, a single applicant, except reactor fuel devices.	.....	.....	4,200
Surcharge	.....	.....	120
C. Registrations issued for the safety evaluation of sealed sources containing byproduct material, source material, or special nuclear material, except reactor fuel, for commercial distribution.	.....	.....	1,800
Surcharge	.....	.....	120
D. Registrations issued for the safety evaluation of sealed sources containing byproduct material, source material, or special nuclear material, manufactured in accordance with the unique specifications of, and for use by, a single applicant, except reactor fuel.	.....	.....	920
Surcharge	.....	.....	120
10. Transportation of radioactive material:			
A. Certificates of Compliance or other package approvals issued for design of casks, packages, and shipping containers			
Spent Fuel, High-Level Waste, and plutonium air packages	.....	.....	[6] N/A
Other Casks	.....	.....	[6] N/A
B. Approvals issued of 10 CFR part 71 quality assurance programs			
Users and Fabricators	.....	.....	67,400
Users	.....	.....	1,000
Surcharge	.....	.....	120
11. Standardized spent fuel facilities	.....	.....	[6] N/A
12. Special Projects	.....	.....	[6] N/A
13. A. Spent fuel storage cask Certificate of Compliance	.....	.....	[6] N/A
B. General licenses for storage of spent fuel under 10 CFR 72.210	.....	.....	136,200
Surcharge	.....	.....	120
14. Byproduct, source, or special nuclear material licenses and other approvals authorizing decommissioning, decontamination, reclamation or site restoration activities pursuant to 10 CFR parts 30, 40, 70, and 72.	.....	.....	[7] N/A
15. Import and Export licenses	.....	.....	[8] N/A
16. Reciprocity	.....	.....	[8] N/A
17. Master materials licenses of broad scope issued to Government agencies	.....	.....	363,600
Surcharge	.....	.....	16,520
18. DOE Certificates of Compliance	.....	.....	[10] 1,013,000
Surcharge	.....	.....	120

[1] Amendments based on applications filed after October 1 of each fiscal year that change the scope of a licensee's program or that cancel a license will not result in any refund or increase in the annual fee for that fiscal year or any portion thereof for the fiscal year filed. The annual fee will be waived where the license is terminated prior to October 1 of each fiscal year, and the amount of the annual fee will be increased or reduced where an amendment or revision is issued to increase or decrease the scope prior to October 1 of each fiscal year.

Annual fees will be assessed based on whether a licensee holds a valid license with the NRC which authorizes possession and use of radioactive material. If a person holds more than one license, certificate, registration, or approval, the annual fee(s) will be assessed for each license, certificate, registration or approval held by that person. For those licenses that authorize more than one activity on a single license (e.g., human use and irradiator activities), annual fees will be assessed for each category applicable to the license. Licensees paying annual fees under Category 1.A.(1) are not subject to the annual fees of category 1.C and 1.D for sealed sources authorized in the license.

[2] Payment of the prescribed annual fee does not automatically renew the license, certificate, registration, or approval for which the fee is paid. Renewal applications must be filed in accordance with the requirements of parts 30, 40, 70, 71, or 72 of this chapter.

[3] For FYs 1994 and 1995, fees for these materials licenses will be calculated and assessed in accordance with § 171.13 and will be published in the **Federal Register** for notice and comment.

[4] A Class I license includes mill licenses issued for the extraction of uranium from uranium ore. A Class II license includes solution mining licenses (in-situ and heap leach) issued for the extraction of uranium from uranium ores including research and development licenses. An "other" license includes licenses for extraction of metals, heavy metals, and rare earths.

[5] Two licenses have been issued by NRC for land disposal of special nuclear material. Once NRC issues a LLW disposal license for byproduct and source material, the Commission will consider establishing an annual fee for this type of license.

[6] Standardized spent fuel facilities, part 71 and 72 Certificates of Compliance and special reviews, such as topical reports, are not assessed an annual fee because the generic costs of regulating these activities are primarily attributable to the users of the designs, certificates, and topical reports.

[7] Licensees in this category are not assessed an annual fee because they are charged an annual fee in other categories while they are licensed to operate.

[8] No annual fee is charged because it is not practical to administer due to the relatively short life or temporary nature of the license.

[9] Separate annual fees will not be assessed for pacemaker licenses issued to medical institutions who also hold nuclear medicine licenses under Categories 7B or 7C.

[10] This includes Certificates of Compliance issued to DOE that are not under the Nuclear Waste Fund.

[11] No annual fee has been established because there are currently no licensees in this particular fee category.

(e) A surcharge is added for each category for which a base annual fee is required. The surcharge consists of the following:

(1) To recover costs relating to LLW disposal generic activities, an additional charge of $61,100 has been added to fee Categories 1.A.(1), 1.A.(2) and 2.A.(1); an additional charge of $1,100 has been added to fee Categories 1.B, 1.D., 2.C., 3.A., 3.B., 3.C., 3.L., 3.M., 3.N., 4.A., 4.B., 4.C., 4.D., 5.B., 6.A., and 7.B.; and an additional charge of $16,400 has been added to fee Category 17.

(2) To recoup those costs not recovered from small entities, an additional charge of $120 has been added to each fee Category, except Categories 1.E, 10.A., 11., 12., 13.A., 14., 15. and 16., since there is no annual fee for these categories. Licensees who qualify as small entities under the provisions of § 171.16(c) and who submit a completed NRC Form 526 are not subject to the $120 additional charge.

13. In § 171.19, paragraphs (b) and (c) are revised to read as follows:

§ 171.19 Payment.

* * * * *

(b) For FY 1993 through FY 1995, the Commission will adjust the fourth quarterly bill for operating power reactors and certain materials licensees to recover the full amount of the revised annual fee. In the event the amounts collected in the first three quarters exceed the amount of the revised annual fee, the overpayment will be refunded. All other licensees, or holders of a certificate, registration, or approval of a QA program will be sent a bill for the full amount of the annual fee upon publication of the final rule. Payment is due on the effective date of the final rule and interest shall accrue from the effective date of the final rule. However, interest will be waived if payment is received within 30 days from the effective date of the final rule.

(c) For FYs 1993 through 1995, annual fees in the amount of $100,000 or more and described in the **Federal Register** notice pursuant to § 171.13, shall be paid in quarterly installments of 25 percent as billed by the NRC. The quarters begin on October 1, January 1, April 1, and July 1 of each fiscal year. Annual fees of less than $100,000 shall be paid once a year as billed by the NRC.

Dated at Rockville, MD, this 9th day of July 1993.

For the Nuclear Regulatory Commission.

James M. Taylor,

Executive Director for Operations.

Appendix A to This Final Rule—Regulatory Flexibility Analysis for the Amendments to 10 CFR Part 170 (License Fees) and 10 CFR Part 171 (Annual Fees)

I. Background

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 et seq.) establishes as a principle of regulatory practice that agencies endeavor to fit regulatory and informational requirements, consistent with applicable statutes, to a scale commensurate with the businesses, organizations, and government jurisdictions to which they apply. To achieve this principle, the Act requires that agencies consider the impact of their actions on small entities. If the agency cannot certify that a rule will not significantly impact a substantial number of small entities, then a regulatory flexibility analysis is required to examine the impacts on small entities and the alternatives to minimize these impacts.

To assist in considering these impacts under the Regulatory Flexibility Act, the NRC adopted size standards for determining which NRC licensees qualify as small entities (50 FR 50241; December 9, 1985). These size standards were clarified November 6, 1991 (56 FR 56672). The NRC size standards are as follows:

(1) A small business is a business with annual receipts of $3.5 million or less except private practice physicians for which the standard is annual receipts of $1 million or less.

(2) A small organization is a not-for-profit organization which is independently owned and operated and has annual receipts of $3.5 million or less.

(3) Small governmental jurisdictions are governments of cities, counties, towns, townships, villages, school districts, or special districts with a population of less than 50,000.

(4) A small educational institution is one that is (1) supported by a qualifying small governmental jurisdiction, or (2) one that is not state or publicly supported and has 500 employees or less.

Public Law 101–508, the Omnibus Budget Reconciliation Act of 1990 (OBRA–90), requires that the NRC recover approximately 100 percent of its budget authority, less appropriations from the Nuclear Waste Fund, for Fiscal Years (FY) 1991 through 1995 by assessing license and annual fees. For FY 1991, the amount collected was approximately $445 million, and for FY 1992, the amount collected was approximately $492.5 million. The amount to be collected in FY 1993 is approximately $518.9.

To comply with OBRA–90, the Commission amended its fee regulations in 10 CFR parts 170 and 171 in FY 1991 (56 FR 31472; July 10, 1991) and FY 1992, (57 FR 32691; July 23, 1992) based on a careful evaluation of over 500 comments. These final rules established the methodology used by NRC in identifying and determining the fees assessed and collected in FY 1991 and FY 1992. The NRC has used the same methodology established in the FY 1991 and FY 1992 rulemakings to establish the fees to be assessed for FY 1993 except for the LLW surcharge. The Commission has changed its policy in one area and will assess annual fees to nonprofit educational institutions.

II. Impact on Small Entities

The comments received on the proposed FY 1991 and FY 1992 fee rule revisions and the small entity certifications received in response to the final FY 1991 and FY 1992 fee rules indicate that NRC licensees qualifying as small entities under the NRC's size standards are primarily those licensed under the NRC's materials program. Therefore, this analysis will focus on the economic impact of the annual fees on materials licensees.

The Commission's fee regulations result in substantial fees being charged to those individuals, organizations, and companies that are licensed under the NRC materials program. Of these materials licensees, the NRC estimates that about 18 percent (approximately 1,300 licensees) qualify as small entities. This estimate is based on the number of small entity certifications filed in response to the FY 1991 and FY 1992 fee rules.

The commenters on the FY 1991 and FY 1992 proposed fee rules indicated the following results if the proposed annual fees were not modified:

—Large firms would gain an unfair competitive advantage over small entities. One commenter noted that a small well-logging company (a "Mom and Pop" type of operation) would find it difficult to absorb the annual fee, while a large corporation would find it easier. Another commenter noted that the fee increase could be more easily absorbed by a high-volume nuclear medicine clinic. A gauge licensee noted that, in the very competitive soils testing market, the annual fees would put it at an extreme disadvantage with its much larger competitors because the proposed fees would be the same for a two-person licensee as for a large firm with thousands of employees.

—Some firms would be forced to cancel their licenses. One commenter, with receipts of less than $500,000 per year, stated that the proposed rule would, in effect, force it to relinquish its soil density gauge and license, thereby reducing its ability to do its work effectively. Another commenter noted that the rule would force the company and many other small businesses to get rid of the materials license altogether. Commenters stated that the proposed rule would result in about 10 percent of the well logging licensees terminating their licenses immediately and approximately 25 percent terminating their licenses before the next annual assessment.

—Some companies would go out of business. One commenter noted that the proposal would put it, and several other small companies, out of business or, at the very least, make it hard to survive.

—Some companies would have budget problems. Many medical licensees commented that, in these times of slashed reimbursements, the proposed increase of the existing fees and the introduction of additional fees would significantly affect their budgets. Another noted that, in view of the cuts by Medicare and other third party carriers, the fees would produce a hardship and some facilities would experience a great deal of difficulty in meeting this additional burden.

Over the past two years, approximately 2,300 license, approval, and registration terminations have been requested. Although some of these terminations were requested because the license was no longer needed or licenses or registrations could be combined, indications are that other termination requests were due to the economic impact of the fees.

The NRC continues to receive written and oral comments from small materials licensees. These comments indicate that the $3.5 million threshold for small entities is not representative of small businesses with gross receipts in the thousands of dollars. These commenters believe that the $1,800 maximum annual fee represents a relatively high percentage of gross annual receipts for these "Mom and Pop" type businesses. Therefore, even the reduced annual fee could have a significant impact on the ability of these types of businesses to continue to operate.

To alleviate the continuing significant impact of the annual fees on a substantial number of small entities, the NRC considered

alternatives, in accordance with the RFA. These alternatives were evaluated in the FY 1991 rule (56 FR 31472; July 10, 1991) and the FY 1992 rule (57 FR 32691; July 23, 1992). The alternatives considered by the NRC can be summarized as follows.

—Base fees on some measure of the amount of radioactivity possessed by the licensee (e.g., number of sources).
—Base fees on the frequency of use of the licensed radioactive material (e.g., volume of patients).
—Base fees on the NRC size standards for small entities.

The NRC has reexamined the FY 1991 and FY 1992 evaluation of the above alternatives. Based on that reexamination, the NRC continues to support the previous conclusion. That is, the NRC continues to believe that establishment of a maximum fee for small entities is the most appropriate option to reduce the impact on small entities.

The NRC established, and is continuing for FY 1993, a maximum annual fee for small entities. The RFA and its implementing guidance do not provide specific guidelines on what constitutes a significant economic impact on a small entity. Therefore, the NRC has no benchmark to assist it in determining the amount or the percent of gross receipts that should be charged to a small entity. For FY 1993, the NRC will rely on the analysis previously completed that established a maximum annual fee for a small entity by comparing NRC license and inspection fees under 10 CFR part 170 with Agreement State fees for those fee categories that are expected to have a substantial number of small entities. Because these fees have been charged to small entities, the NRC continues to believe that these fees or any adjustments to these fees during the past year do not have a significant impact on them. In issuing this final rule for FY 1993, the NRC concludes that the materials license and inspection fees do not have a significant impact on a substantial number of small entities and that the maximum annual small entity fee of $1,800 be maintained to alleviate the impact of the fees on small entities.

By maintaining the maximum annual fee for small entities at $1,800, the annual fee for many small entities will be reduced while at the same time materials licensees, including small entities, pay for most of the FY 1993 costs ($33.2 million of the total $38.6 million) attributable to them. Therefore, the NRC is continuing, for FY 1993, the maximum annual fee (base annual fee plus surcharge) for certain small entities at $1,800 for each fee category covered by each license issued to a small entity. Note that the costs not recovered from small entities are allocated to other materials licensees and to operating power reactors.

While reducing the impact on many small entities, the Commission agrees that the current maximum annual fee of $1,800 for small entities, when added to the part 170 license and inspection fees, may continue to have a significant impact on materials licensees with annual gross receipts in the thousands of dollars. Therefore, as in FY 1992, the NRC will continue for FY 1993 the lower-tier small entity annual fee of $400 for small entities with relatively low gross annual receipts established in the final rule dated April 17, 1992 (57 FR 13625).

In establishing the annual fee for lower tier small entities, the NRC continues to retain a balance between the objectives of the RFA and OBRA–90. This balance can be measured by (1) the amount of costs attributable to small entities that is transferred to larger entities (the small entity subsidy); (2) the total annual fee small entities pay, relative to this subsidy; and (3) how much the annual fee is for a lower tier small entity. Nuclear gauge users were used to measure the reduction in fees because they represent about 40 percent of the materials licensees and most likely would include a larger percentage of lower tier small entities than would other classes of materials licensees. The Commission is continuing an annual fee of $400 for the lower tier small entities to ensure that the lower tier small entities receive a reduction (75 percent for small gauge users) substantial enough to mitigate any severe impact. Although other reduced fees would result in lower subsidies, the Commission believes that the amount of the associated annual fees, when added to the license and inspection fees, would still be considerable for small businesses and organizations with gross receipts of less than $250,000 or for governmental entities in jurisdictions with a population of less than 20,000.

III. Summary

The NRC has determined the annual fee significantly impacts a substantial number of small entities. A maximum fee for small entities strikes a balance between the requirement to collect 100 percent of the NRC budget and the requirement to consider means of reducing the impact of the proposed fee on small entities. On the basis of its regulatory flexibility analyses, the NRC concludes that a maximum annual fee of $1,800 for small entities and a lower tier small entity annual fee of $400 for small businesses and non-profit organizations with gross annual receipts of less than $250,000, and small governmental entities with a population of less than 20,000, will reduce the impact on small entities. At the same time, these reduced annual fees are consistent with the objectives of OBRA–90. Thus, the revised fees for small entities maintain a balance between the objectives of OBRA–90 and the RFA. The NRC has used the methodology and procedures developed for the FY 1991 and FY 1992 fee rules in this final rule establishing the FY 1993 fees. Therefore, the analysis and conclusions established in the FY 1991 and FY 1992 rules remain valid for this final rule for FY 1993.

[FR Doc. 93–16885 Filed 7–19–93; 8:45 am]

BILLING CODE 7590-01-P

FEDERAL RESERVE SYSTEM

12 CFR Part 264b

Regulations Regarding Foreign Gifts and Decorations

CFR Correction

In title 12 of the Code of Federal Regulations, parts 220 to 299, revised as of January 1, 1993, on page 684, in § 264b.3 some of the text of paragraphs (c) and (d) was inadvertently omitted. As corrected the text of paragraphs (c) and (d) should read as follows:

§ 264b.3 Foreign gifts.

* * * * *

(c) *Tangible gifts of more than minimal value.* A tangible gift of more than minimal value tendered by a foreign government may be accepted when it appears that to refuse the gift would likely cause offense or embarrassment or otherwise adversely affect the foreign relations of the United States. Such a gift accepted under these circumstances is deemed to have been accepted on behalf of the United States, and, upon acceptance, it shall become the property of the United States. Within 60 days after accepting a gift under these circumstances the member or employee must deposit the gift with the Secretary of the Board.

(d) *Travel or expenses for travel.* Board Members and employees may accept gifts of travel or expenses for travel taking place entirely outside the United States (such as transportation, food, and lodging) of more than minimal value if such acceptance is appropriate, consistent with the interests of the United States, and is permitted by the Board. Requests for Board approval of acceptance of such expenses shall be submitted to the Vice Chairman of the Board.

BILLING CODE 1505-01-D

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 21 and 29

[Docket No. 93–ASW–3; Special Condition 29–ASW–10]

Special Condition: Bell Helicopter Textron Inc. Model 230 Helicopter, Electronic Flight Instrument System

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final special condition.

SUMMARY: This special condition is issued for the Bell Helicopter Textron, Inc. Model 230 helicopter. This helicopter will have a novel or unusual design feature associated with the electronic flight instrument system. This special condition contains additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that provided by the applicable airworthiness standards.

EFFECTIVE DATE: August 19, 1993.

FOR FURTHER INFORMATION CONTACT: Mr. Robert McCallister, Federal Aviation Administration (FAA), Rotorcraft Directorate, Rotorcraft Standards Staff, Policy Group, Fort Worth, Texas 76193–0112; telephone (817) 624–5121.

SUPPLEMENTARY INFORMATION:

Background

King Radio Corporation, Olathe, Kansas, submitted an application on August 14, 1992, for a Supplemental Type Certificate (STC) for installation of an Electronic Flight Instrument System and Flight Management System in a Bell Helicopter Textron, Inc. (BHTI) 230 helicopter. The BHTI Model 230 is a 10-passenger, two-engine, 8,400-pound transport category helicopter.

Type Certification Basis

The certification basis established for the BHTI Model 230 includes: Federal Aviation Regulation (FAR) § 21.29 and part 29 effective February 1, 1965, Amendments 29–1 through 29–9; § 29.997, Amendment 29–10; § 29.1401, Amendment 29–11; §§ 29.25(c), 29.801, 29.865, 29.1555(c), 29.1557(c), Amendment 29–12; § 29.927(b)(2), Amendment 29–17; Instrument Flight Rules (IFR) requirements dated December 15, 1978; FAA Exemption No. 2789, § 29.811(f)(1); FAA Exemption No. 4395, § 29.855(a); selected sections of part 29 up to and including Amendment 29–26 as follows: §§ 29.1, 29.21 thru 29.175, 29.231 thru 29.235, 29.251 thru 29.361, 29.411, 29.471 thru 29.493, 29.501, 29.547 thru 29.549, 29.561 thru 29.603, 29.607 thru 29.609, 29.611 thru 29.629, 29.683, 29.723 thru 29.727, 29.731, 29.735, 29.771 thru 29.775, 29.785, 29.831, 29.855, 29.861 thru 29.863, 29.873 thru 29.917, 29.931, 29.939 thru 29.953, 29.955, 29.961, 29.993 thru 29.997, 29.1011 thru 29.1023, 29.1027 thru 29.1105, 29.1121 thru 29.1123, 29.1141, 29.1143 thru 29.1145, 29.1163 thru 29.1307, 29.1321 thru 29.1322, 29.1327, 29.1331 thru 29.1333, 29.1337, 29.1359 thru 29.1381, 29.1401, 29.1431, 29.1461 thru 29.1505, 29.1517 thru 29.1521, 29.1527, 29.1541 thru 29.1543, 29.1549 thru 29.1551, 29.1555 thru 29.1559, 29.1581 thru 29.1587, appendix B; the noise standards of part 36 and ICAO Annex 16; and Canadian Airworthiness Manual 529: 529.1301–1, 529.1557(c)(3), 529.581, 529.1093(b)(1)(ii).

If the Administrator finds that the applicable airworthiness regulations do not contain adequate or appropriate safety standards for the Model 230 helicopter because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.101(b)(2) to establish a level of safety equivalent to that established in the regulations.

Special conditions, as appropriate, are issued in accordance with § 11.49 of the FAR, after public notice, as required by §§ 11.28 and 11.29(b), and become a part of the type certification basis in accordance with § 21.101(b)(2). In addition to the applicable airworthiness regulations and special condition, the Model 230 must comply with the noise requirements of part 36.

Novel or Unusual Design Feature

The BHTI Model 230 helicopter, at the time of application for the STC, was identified as incorporating electrical, electronic, or a combination of electrical, electronic systems that will be performing functions critical to the continued safe flight and landing of the helicopter. The electronic flight instrument system performs the attitude display function. The display of attitude, altitude, and airspeed to the pilot is critical to the continued safe flight and landing of the helicopter while operating in accordance with IFR in instrument meteorological conditions.

If it is determined that this helicopter will incorporate other electrical, electronic, or a combination of electrical, electronic systems that perform critical functions, those systems also will be required to comply with the requirements of this special condition.

Discussion of Comments

Notice of Proposed Special Condition No. SC–93–3–SW was published in the **Federal Register** on January 22, 1993 (58 FR 5669). No comments were received. Therefore, the special condition is adopted as proposed.

Conclusion

This action affects only one unusual or novel design feature on one series of helicopters. It is not a rule of general applicability and affects only the manufacturer who applied to the FAA for approval of these features on the affected helicopters.

List of Subjects 14 CFR Parts 21 and 29

Aircraft, Air transportation, Aviation safety, Rotorcraft, Safety.

The authority citation for this special condition is as follows:

Authority: 49 U.S.C. 1344, 1348(c), 1352, 1354(a), 1355, 1421 through 1431, 1502, 1651(b)(2); 42 U.S.C. 1857f–10, 4321 et seq.; E.O. 11514; 49 U.S.C. 106(g).

The Special Condition

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special condition is issued as part of the type certification basis for the Bell Helicopter Textron, Inc. Model 230 helicopter:

Protection for Electrical/Electronic Systems From High Intensity Radiated Fields

Each system that performs critical functions must be designed and installed to ensure that the operation and operational capabilities of these critical functions are not adversely affected when the helicopter is exposed to high intensity radiated fields external to the helicopter.

Issued in Fort Worth, Texas, on July 7, 1993.

James D. Erickson,

Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 93–17165 Filed 7–19–93; 8:45 am]

BILLING CODE 4910–13–M

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14 CFR Parts 21 and 29

[Docket No. 92–ASW–4; Special Condition 29–ASW–9]

Special Condition: Bell Helicopter Textron, Inc. Model 230 Helicopter, Electronic Flight Instrument System

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final special condition.

SUMMARY: This special condition is issued for the Bell Helicopter Textron, Inc. Model 230 helicopter. This helicopter will have a novel or unusual design feature associated with the electronic flight instrument system. This special condition contains additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that provided by the applicable airworthiness standards.

EFFECTIVE DATE: July 20, 1993.

FOR FURTHER INFORMATION CONTACT: Mr. Robert McCallister, Federal Aviation Administration (FAA), Rotorcraft Directorate, Rotorcraft Standards Staff, Regulations Group,

Forth Worth, Texas 76193–0112; telephone (817) 624–5121.

SUPPLEMENTARY INFORMATION:

Background

Heli-Dyne Systems Inc., Hurst, Texas, submitted an application on April 10, 1992, for a Supplemental Type Certificate for installation of an Electronic Flight Instrument System and Flight Management System in a Bell Helicopter Textron, Inc. (BHTI) 230 helicopter. The Model 230 is a 10-passenger, two-engine, 8,400-pound transport category helicopter.

Type Certification Basis

The certification basis established for the BHTI Model 230 includes: Federal Aviation Regulation (FAR) § 21.29 and part 29 effective February 1, 1965, Amendments 29–1 through 29–9; § 29.997, Amendment 29–10; § 29.1401, Amendment 29–11; §§ 29.25(c), 29.801, 29.865, 29.1555(c), 29.1557(c), Amendment 29–12; § 29.927(b)(2), Amendment 29–17; Instrument Flight Rules (IFR) requirements dated December 15, 1978; FAA Exemption No. 2789, § 29.811(f)(1); FAA Exemption No. 4395, § 29.855(a); selected sections of Part 29 up to and including Amendment 29–26 as follows: §§ 29.1, 29.21 thru 29.175, 29.231 thru 29.235, 29.251 thru 29.361, 29.411, 29.471 thru 29.493, 29.501, 29.547 thru 29.549, 29.561 thru 29.603, 29.607 thru 29.609, 29.611 thru 29.629, 29.683, 29.723 thru 29.727, 29.731, 29.735, 29.771 thru 29.775, 29.785, 29.831, 29.855, 29.861 thru 29.863, 29.873 thru 29.917, 29.931, 29.939 thru 29,953, 29.955, 29.961, 29.993 thru 29.997, 29.1011 thru 29.1023, 29.1027 thru 29.1105, 29.1121 thru 29.1123, 29.1141, 29.1143 thru 29.1145, 29.1163 thru 29.1307, 29.1321 thru 29.1322, 29.1327, 29.1331 thru 29.1333, 29.1337, 29.1359 thru 29.1381, 29.1401, 29.1431, 29.1461 thru 29.1505, 29.1517 thru 29.1521, 29.1527, 29.1541 thru 29.1543, 29.1549 thru 29.1551, 29.1555 thru 29.1559, 29.1581 thru 29.1587, Appendix B; the noise standards of part 36 and ICAO Annex 16; and Canadian Airworthiness Manual 529; 529.1301–1, 529.1557(c)(3), 529.581, 529.1093(b)(1)(ii).

If the Administrator finds that the applicable airworthiness regulations do not contain adequate or appropriate safety standards for the Model 230 helicopter because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.101(b)(2) to establish a level of safety equivalent to that established in the regulations.

Special conditions, as appropriate, are issued in accordance with § 11.49 of the FAR, after public notice, as required by §§ 11.28 and 11.29(b), and become a part of the type certification basis in accordance with § 21.101(b)(2). In addition to the applicable airworthiness regulations and special condition, the Model 230 must comply with the noise requirements of part 36.

Novel or Unusual Design Feature

The BHTI Model 230 helicopter, at the time of application, was identified as incorporating electrical, electronic or a combination electrical, electronic systems that will be performing functions critical to the continued safe flight and landing of the helicopter. The electronic flight instrument system performs the attitude display function. The display of attitude, altitude, and airspeed to the pilot is critical to the continued safe flight and landing of the helicopter while operating in accordance with IFR in instrument meteorological conditions.

If it is determined that this helicopter will incorporate other electrical, electronic systems or a combination electrical, electronic systems performing critical functions, those systems also will be required to comply with the requirements of this special condition.

Discussion of Comments

Notice of Proposed Special Condition No. SC–92–4–SW was published in the **Federal Register** on October 15, 1992, (57 FR 47295). No comments were received. Therefore, the special condition is adopted as proposed.

Conclusion

This action affects only one unusual or novel design feature on one series of helicopters. It is not a rule of general applicability and affects only the manufacturer who applied to the FAA for approval of these features on the affected helicopters.

The FAA has determined that good cause exists for making this rule effective in less than 30 day after publication. This special condition affects only a single type design. No comments were received in response to the Notice. Further, the applicant would experience an undue economic penalty due to a delay in the delivery of the affected helicopters if the effectivity of this rule of special effect is delayed. Therefore, this special condition is made effective immediately upon issuance.

List of Subjects in 14 CFR Parts 21 and 29

Aircraft, Air transportation, Aviation safety, Rotorcraft, Safety.

The authority citation for this special condition is as follows:

Authority: 49 U.S.C. 1344, 1348(c), 1352, 1354(a), 1355, 1421 through 1431, 1502, 1651(b)(2); 42 U.S.C. 1857f–10, 4321 et seq.; E.O. 11514; 49 U.S.C. 106(g).

The Special Condition

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special condition is issued as part of the type certification basis for the Bell Helicopter Textron, Inc. Model 230 helicopter:

Protection for Electrical/Electronic Systems From High Intensity Radiated Fields.

Each system that performs critical functions must be designed and installed to ensure that the operation and operational capabilities of these critical functions are not adversely affected when the helicopter is exposed to high intensity radiated fields external to the helicopter.

Issued in Fort Worth, Texas, on July 7, 1993.

James D. Erickson,

Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 93–17167 Filed 7–19–93; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 291

[Docket No. 93N–0040]

Levo-ALPHA-Acetyl-Methadol (LAAM) in Maintenance; Revision of Conditions for Use in the Treatment of Narcotic Addiction

AGENCIES: Food and Drug Administration and the National Institute on Drug Abuse, HHS.

ACTION: Interim rule; request for public comment.

SUMMARY: The Food and Drug Administration (FDA), in consultation with the National Institute on Drug Abuse (NIDA), is issuing interim rules revising conditions for the treatment of narcotic addiction to provide standards for the use of Levo-*Alpha*-Acetyl-Methadol (LAAM) in the maintenance treatment of narcotic addicts. This action will allow narcotic treatment

programs to provide an additional drug for use in the maintenance treatment of narcotic addicts. FDA is issuing these regulations as an interim rule with a request for public comment.

DATES: Effective July 20, 1993; written comments by September 20, 1993.

ADDRESSES: Submit written comments to the Dockets Management Branch (HFA–305), Food and Drug Administration, Rm. 1–23, 12420 Parklawn Dr., Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: Thomas Kuchenberg, Center for Drug Evaluation and Research (HFD–362), Food and Drug Administration, 7500 Standish Pl., Rockville, MD 20855, 301–295–8046.

SUPPLEMENTARY INFORMATION:

I. Background

Section 4 of the Comprehensive Drug Abuse Prevention and Control Act of 1970 (Pub. L. 91–513) requires the Secretary of Health and Human Services (the Secretary) to determine the appropriate methods of professional practice for the medical treatment of narcotic addiction. In addition, the Narcotic Addict Treatment Act of 1974 (Pub. L. 93–281) amended the Controlled Substances Act (21 U.S.C. 823) to require that practitioners who wish to dispense narcotic drugs to individuals for the maintenance treatment or detoxification treatment of narcotic addiction must be registered annually with the Department of Justice, Drug Enforcement Administration (DEA). Registration depends, in part, upon a determination by the Secretary that the applicant is qualified, under treatment standards established by the Secretary, to provide such treatment. In addition, the applicant must comply with standards established by the Secretary (after consultation with DEA) respecting the quantities of narcotic drugs that may be provided for unsupervised use by individuals in such treatment. Finally, the applicant must comply with standards established by DEA respecting security of stocks of narcotic drugs used for such treatment and maintenance of records on such drugs.

Regulations governing conditions for the use of narcotic drugs in the maintenance and detoxification treatment of narcotic addicts can be found in part 291 (21 CFR part 291). Section 291.505 (commonly referred to as the methadone regulation) is currently applicable to methadone, the only narcotic drug now approved for use in the maintenance and detoxification treatment of narcotic addiction. The methadone regulation delineates the appropriate methods of professional practice for medical treatment of the narcotic addiction of various categories of addicts and provides close controls over the distribution, administration, and dispensing of methadone in treatment programs. Elements of the methadone regulation include general provisions regarding treatment program organizational structure and approval requirements, minimum standards for patient evaluation and admission, minimum medical and rehabilitative support services, and program sanctions.

The methadone regulation has, in general, facilitated the efficient and safe management and rehabilitation of narcotic addicts. The use of methadone has been central to narcotic drug treatment efforts for over two decades and has helped many narcotic addicts decrease the intravenous (IV) use of illegal narcotic drugs and avoid human immunodeficiency virus (HIV) infection, which is known to be transmitted by sharing contaminated hypodermic needles. Although methadone has been widely accepted as the standard narcotic treatment for heroin dependence since its introduction, there have been important changes in the addict population in the last 20 years. These include the periodic introduction and popularity of "new" illegal drugs and the tendency for an increasing number of individuals to simultaneously abuse a number of these substances. These factors have led to a growing need by narcotic treatment professionals for additional treatment options and has stimulated an ongoing search for alternative medications.

II. NIDA'S Medication Development Program

The Anti-Drug Abuse Act of 1988 (Pub. L. 100–690) authorized expanded research to make drugs other than methadone available for treatment of intravenous opiate addiction. This law expanded NIDA's efforts in data collection, treatment evaluation, demonstration projects, and development of new and improved treatment methods, including additional pharmacologic agents to treat drug abuse.

NIDA formed a Drug Development Task Force to solicit support from the pharmaceutical industry, administer grants to investigators, and oversee toxicity tests, clinical trials, and computer-assisted screening of potentially helpful drugs. In fiscal year 1989, NIDA established the Medications Development Program to research and develop new and more effective medications to treat addictive disorders, most notably opiate and cocaine addiction. NIDA also established treatment research units that have a major role in evaluating new medications and conducting the necessary preliminary clinical trials of the drug development process. Promising new drugs are to be guided through final clinical testing and the new drug approval process so as to be marketed for the treatment of drug addiction through agreements reached with the sponsoring pharmaceutical companies. NIDA's role in the development of new drugs is further delineated by the ADAMHA Reorganization Act (Pub. L. 102–321) enacted on July 10, 1992 (ADAMHA means the Alcohol, Drug Abuse, and Mental Health Administration). Section 123 of this legislation gives NIDA's Medications Development Program expanded authority to encourage and promote the development and use of medications to treat drug addiction.

In addition to developing treatment drugs, NIDA plans to use drug abuse research to target drugs that may fulfill certain therapeutic goals. Technological advances and research have led to an expanded understanding of how drugs interact with the brain. Using this understanding, the goal is to develop drug abuse medications that:

(1) Block the effects of abused drugs;

(2) reduce the craving for abused drugs;

(3) moderate or eliminate withdrawal symptoms;

(4) block or reverse the toxic effects of abused drugs; or

(5) prevent relapse in persons who have been detoxified from drugs of abuse. It is therefore important that regulations governing narcotic treatment programs are able to accommodate the potential use of a variety of treatment medications.

NIDA and FDA thus share responsibility for providing a wider range of treatment drugs to programs. NIDA is charged with developing the new medications and FDA with both determining whether such medications are effective and developing standards for their safe use. To encourage cooperation, the ADAMHA Reorganization Act states that the Director of NIDA is to "conduct periodic meetings with the Commissioner of Food and Drugs to discuss measures that may facilitate the approval process of drug abuse treatments."

It is anticipated that the Medications Development Program will expand the number of drug products available for the treatment of drug abuse. Indeed, a number of addiction treatment

medications with potential for clinical use are already in clinical trials. One product to emerge from this process is LAAM, a narcotic drug which has been approved for maintenance treatment of narcotic addiction.

III. Justification for Dispensing with Prior Notice and Opportunity for Public Comment

The Administrative Procedure Act (5 U.S.C. 553) requires agencies to follow certain procedures for informal rulemaking, including publication of proposed rules in the **Federal Register** with an opportunity for public comment. Section 553(b)(B) allows agencies to dispense with prior notice and opportunity for public comment if the agency finds for good cause that use of such procedures is impracticable, unnecessary, or contrary to the public interest.

FDA and NIDA have determined that good cause exists for publication of these rules without prior notice and opportunity for public comment and without a delayed effective date since such procedures are contrary to the public interest and unnecessary. It is in the public interest for LAAM to be available as a maintenance treatment for narcotic addiction simultaneous with its approval rather than for the drug to be unavailable for the period of time it would take the agency to publish proposed and final rules based on the approval. This additional treatment can help to reduce the mortality rate among addicts and the possible spread of HIV and other diseases among addicts and the general population by decreasing IV drug abuse.

Even before the onset of the HIV epidemic, the mortality rates among addicts exceeded that of nonaddicts. A significant factor in this higher mortality is the insanitary conditions which often accompany the administration of illegal drugs. These conditions, particularly the practice of needle sharing, have facilitated the spread of a number of disorders including pneumonia, hepatitis A and B, immunologic abnormalities, and HIV disease. In a January 6, 1993, FDA and Substance Abuse and Mental Health Administration (SAMHSA) regulation providing for interim maintenance treatment, the Secretary made a finding that "the preponderance of scientific research indicates that IV abuse of drugs is, in fact, a primary pathway for HIV disease transmission and as such constitutes a major public health problem" (58 FR 495 at 496). It is important to note that while the addict population is particularly susceptible, these diseases can also be spread to the nonaddict population. Evidence also indicates that participation in a maintenance treatment program reduces IV drug abuse, the potential for disease transmission, and its associated mortality rate. In the interim maintenance rule published in the **Federal Register** of January 6, 1993, the Secretary also found that "the preponderance of scientific research indicates that the medically supervised dispensing of methadone continues to be an effective method of reducing dependence on heroin and other morphine-like drugs" (58 FR 495 at 496). It is, therefore, important to facilitate actions that enable programs to enhance services and more effectively interdict IV drug abuse.

LAAM will provide treatment programs with an additional option for the treatment of addiction and, because of the longer duration of its effects, will provide programs with more flexibility. The longer duration of LAAM may also help alleviate the overcrowding currently causing problems in some programs. A 1992 FDA survey indicates that a number of the areas experiencing a shortage of treatment capacity are also areas experiencing increases in the incidence of HIV disease among IV drug abusers. Congress addressed the problem of inadequate treatment capacity by including a provision in the 1992 ADAMHA Reorganization Act, which authorizes States to permit interim methadone maintenance in areas with a shortage of treatment slots. Because it is recommended that patients be given LAAM three times a week or every other day, as opposed to the daily dosing generally recommended for methadone, use of LAAM may allow programs to increase the number of comprehensive treatment positions.

While LAAM has been approved for the purpose of treating narcotic addicts, it continues to be the subject of ongoing clinical research. This research and testing may lead to a reevaluation of current recommendations for, or restrictions on, the use of the drug by certain categories of patients. Any changes resulting from such ongoing studies or with experience gained through use of LAAM in treatment programs will be incorporated in a final rule.

In addition to the public interest in having LAAM available for treatment use as soon as possible, prior notice and comment procedures and delayed effective date are unnecessary. The rules reflect FDA's approval of a new drug application (NDA) for LAAM, a process not subject to public participation. In addition, the regulations merely add LAAM as an available treatment drug within the existing structure of the current narcotic addiction treatment regulations which were subject to notice and comment rulemaking. The current regulations, published in the **Federal Register** of March 2, 1989 (54 FR 8954), changed many methadone specific terms to narcotic treatment drug general terms in describing general conditions for use of narcotic drugs to treat narcotic addiction. Thus, the current regulations appear to have anticipated the incorporation of additional approved treatment drugs with conforming changes to provisions such as 21 CFR 291.505(b)(2)(v). These rules make further changes from methadone specific terms to narcotic treatment general terms to reflect the approval of LAAM as a maintenance treatment for narcotic addiction.

IV. LAAM Maintenance Treatment

LAAM was developed in 1948 as a synthetic congener of methadone. Originally tested as a narcotic analgesic in Germany, it attracted attention in this country in the 1970's as a potential treatment drug for heroin addiction. In contrast to methadone, the effects of orally administered LAAM do not start until several hours after administration and last an average of 2 to 3 days. As a result, LAAM produces less of an opiate "high" and narcotic sedation than heroin and other morphine-like drugs. There was an initial attempt to examine its potential as an addiction-treatment drug, and a total of 27 separate studies involving approximately 6,000 opiate-dependent patients were conducted with LAAM between 1969 and the early 1980's. Thereafter, the effort to develop LAAM's narcotic treatment potential languished until passage of the 1988 Anti-Drug Abuse Act gave NIDA the economic and legal resources necessary to renew sponsorship of the drug. Because most of the original research was conducted during the first period of LAAM development in the 1970's, updated studies were conducted to verify the recommended labeling for LAAM and to gain further experience with use of the drug in women and patients who are HIV positive. There was also a need to learn more about the drug's effectiveness in the current addict population, a population that has a higher incidence of hepatitis B and other liver diseases and is more prone to multidrug abuse than the population originally studied in the 1970's.

Because of these and other considerations of safety that had to be addressed before approval of an NDA for LAAM, NIDA sponsored a label assessment study of LAAM for use in

maintenance treatment of narcotic addiction. The results of that study indicated LAAM is effective in the long-term treatment of narcotic addiction.

Although a provision permitting interim maintenance under certain conditions was published on January 6, 1993 (58 FR 495), the last extensive revision of the methadone regulation appeared in the **Federal Register** of March 2, 1989 (54 FR 8954). As discussed in the preamble to the March 2, 1989, final rule, these revisions were designed to streamline the regulation and to promote more efficient operation of narcotic treatment programs. Among these changes were revisions that established as general requirements provisions that had previously applied solely to methadone, e.g., methadone treatment program became narcotic treatment program and methadone maintenance treatment became maintenance treatment. These revisions resulted in a framework of program requirements such as minimum standards for patient evaluation and admission, minimum standards for medical and rehabilitative support services, and program sanctions that can be applied to any new drug authorized for use in the treatment of drug abuse.

FDA and NIDA are now authorizing the use of LAAM in the maintenance treatment of narcotic addicts. LAAM is the first of several new narcotic treatment drugs under development that are to be guided, as previously discussed, through final clinical testing and the new drug approval process according to agreements reached with the sponsoring pharmaceutical companies.

In order to provide for the use of LAAM and other narcotic treatment drugs while retaining the current requirements for the use of methadone in a narcotic treatment program, the regulations are restructured to provide: (1) General requirements applicable to all narcotic treatment programs regardless of the drug used in treatment; (2) specific requirements applicable solely to LAAM; and (3) specific requirements applicable solely to methadone. As additional treatment drugs are approved, provisions that are critical to the safe use of a product in a treatment program will be included in the regulation.

V. Description of the Interim Final Rule

Current § 291.501 was promulgated in 1977 and reflected the then-investigational use of methadone in narcotic addict treatment programs and concerns about possible abuses that might arise from such use. Since 1977, widespread experience with methadone maintenance treatment has demonstrated the ability of these programs to help certain drug abusers lead more productive and independent lives. As a result, current § 291.501(a) speaks of a need for further research on what is now a well-understood drug. This interim final rule deletes these and other references particular to methadone in §§ 291.501 and 291.505 and replaces them with a more general statement recognizing that the use of narcotic drugs in maintenance treatment can be an effective part of the management and rehabilitation of selected addicts.

Current § 291.501(a) reflects the earlier, experimental, nature of maintenance treatment and calls for further research. The interim final rule replaces such language with a statement that interested and qualified parties should be allowed to use approved narcotic drugs in the treatment of addiction. It will also require that such drugs have an approved NDA for such use.

Under current § 291.505(b)(2)(v), methadone is the only drug approved for use in treatment programs. In this interim final rule, § 291.505(b)(2)(v) adds LAAM to the list of drugs available for the treatment of narcotic addiction.

Section 291.505(c) details some of the requirements for obtaining approval to operate a treatment program, including necessary program services and applications. The interim final rule changes the title of Form FDA–2632, "Application for Approval of Use of Methadone in a Treatment Program," to "Application for Approval of Use of Narcotic Drugs in a Treatment Program." Similar title changes to forms occur elsewhere in part 291 in order to reflect the potential availability of a variety of treatment drugs.

The minimum standards for admission to a treatment program are found at § 291.505(d). Before admission, program personnel take a history of addiction from the new patient, and current § 291.505(d)(1)(i)(C) requires that this information be recorded before any methadone is administered to the patient. In order to provide for drugs other than methadone, the interim final rule deletes the reference to methadone and requires that the history of addiction be recorded before administration of any narcotic treatment drug.

Current § 291.505(d)(1)(ii) requires that treatment programs ensure that a patient's participation in a treatment program is voluntary, and that all relevant facts regarding use of the treatment drug are clearly and adequately explained to the patient entering the program. The patient must also sign consent form FDA–2635. If the prospective patient is under the age of 18, this consent form is to be signed by a parent, guardian, or responsible adult designated by the State authority. To provide for narcotic drugs other than methadone, the interim final rule changes the title of FDA–2635 from "Consent to Methadone Treatment" to "Consent to Treatment with an Approved Narcotic Drug."

The current regulation exempts certain categories of patients from the general requirements governing admission to treatment programs. Although a number of patient categories are the subject of specialized labeling under 21 CFR 201.57 (e.g., pregnancy, nursing mothers), the unique nature of narcotic treatment drugs has made it necessary to extend additional regulatory protection to certain categories of patients.

Under the existing regulation, pregnant patients with a history of drug addiction may be placed on methadone maintenance and are to be given an opportunity to obtain prenatal care (§ 291.505(d)(1)(iii)(B)(*1*)).

Because LAAM is not approved for use during pregnancy or while nursing, patients who are or become pregnant cannot be started or continued on LAAM except by written order of a physician who determines this to be the best choice of therapy for the patient. Clinics providing treatment with the drug must advise all patients of childbearing potential of the risks of LAAM and make a medical evaluation available to all patients who become pregnant while taking the drug. In addition, the interim final rule, at § 291.505(d)(1)(iii)(B)(*6*), requires that any female patient of childbearing potential be tested for pregnancy before admission to LAAM maintenance treatment and that pregnancy tests be performed monthly thereafter. Where initial urine screens are positive, the program may wish to employ other tests to confirm the pregnancy. In order to ensure the accuracy of such testing, the interim final rule requires that such tests be performed in a laboratory approved under the Clinical Laboratory Improvement Amendments of 1988 (CLIA '88) (Pub. L. 100–578) or certified by a State or private accrediting body approved by the Health Care Financing Administration. The purpose of CLIA '88 is to ensure that laboratories provide accurate and reliable test results and that individuals are not adversely affected by substandard laboratory operations and testing procedures.

Another group of patients subject to slightly different admission standards are those who have been previously

treated. Existing § 291.505(d)(1)(iii)(C) states that, within certain circumstances, patients who have been previously treated and later voluntarily detoxified from maintenance treatment may be readmitted without evidence of current addiction. For patients readmitted under these standards, the quantity of take-home medication is subject to the clinical judgment of the admitting program physician and can be no greater than what would have been allowed under previous treatment. Because there is currently no adequate assessment of the risks of allowing take-home for LAAM, § 291.505(k)(1)(iii) provides for no take-home privileges for LAAM. Therefore, § 291.505(d)(1)(iii)(C) is revised to limit take-home medication for previously treated patients to those drugs for which take-home privileges are permitted.

Current § 291.505(d)(1)(iv) authorizes maintenance treatment of adolescent patients under specified circumstances. However, because there are no adequate studies to support the use of LAAM in those younger than 18, the interim final rule adds a new provision (§ 291.505(d)(1)(iv)(B)) that prohibits any person under 18 years of age from entering LAAM maintenance treatment.

Current § 291.505(d)(3)(i) requires patients to be medically evaluated on admission to a treatment program. As part of this evaluation, the regulation mandates a number of laboratory examinations. Because FDA has not approved LAAM for use during pregnancy, the interim final rule revises § 291.505(d)(3)(i) to require an initial pregnancy test for women of childbearing potential seeking admission to LAAM maintenance treatment.

Current § 291.505(d)(4) requires that a treatment program provide a comprehensive range of medical and rehabilitative services to its patients and delineates the general responsibilities of the medical director and program physicians and the use of health care professionals in narcotic treatment programs. For improved organization of related requirements, the interim final rule transfers the provisions of current § 291.505(d)(6)(ii), which addresses the responsibilities of authorized dispensers of narcotic drugs, to new § 291.505(d)(4)(v). Accordingly, current § 291.505(d)(6)(ii) is removed and reserved.

Section 291.505(d)(6) delineates the requirements regarding the use and administration of methadone in a treatment program. The interim final rule revises the heading of the paragraph to make it clear that this paragraph applies solely to the use of methadone in a treatment program.

VI. Narcotic Treatment Regulations

As noted, this interim final rule is intended to further the transformation of current § 291.505 into a regulation that establishes standards for narcotic treatment programs to include all drugs approved for treatment of addiction. Accordingly, this interim final rule redesignates § 291.505(k) as § 291.505(l) and adds new § 291.505(k), which addresses the use of approved narcotic drug products other than methadone in a treatment program.

The agencies believe that certain aspects of the administration of LAAM must be codified to protect patients and, to that end, the interim final rule will add certain provisions under new § 291.505(k)(1). These provisions provide specific dosing requirements for LAAM, prohibit take-home use of the drug, and describe circumstances under which a LAAM patient may be temporarily transferred to methadone.

Subsequent paragraphs under new § 291.505(k) will provide specific requirements for future narcotic drugs approved for the treatment of narcotic addiction. This approach will enable the agencies to promulgate, if necessary, additional requirements for narcotic drug products approved in the future. Additional regulatory requirements will be examined during the NDA review process, and factors that would help determine whether specific regulatory requirements would be needed include the drug product's safety profile, the potential for diversion to illicit use, and other factors. This approach recognizes the importance of the approved product labeling, which results from the rigorous NDA review process, and which facilitates the safe and effective use of new narcotic treatment drug products.

New § 291.505(k)(1)(i) requires that patients be administered LAAM no more frequently than every other day at doses, frequencies, and under conditions of usage described in approved labeling. The usual dosing regimen is thrice weekly. For a patient with an unknown tolerance to opioids, the initial dose of LAAM should not exceed 40 milligrams (mg). Caution in administering an initial dose of LAAM is particularly important because the effects of LAAM are not felt until several hours after administration. Provided there is a demonstrated need, this provision does not preclude additional dosing. For a patient previously stabilized on methadone maintenance, the initial dose will be 1.3 times the daily methadone dose and is not to exceed 120 mg. The interim final rule requires a licensed physician to assume responsibility for the amount of the drug dispensed and to record, date, and sign in each patient's record each change in dosage schedule. Any single dose after the initial dose that is greater than 140 mg must be justified in the patient's record by the administering licensed physician. LAAM, under § 291.505(k)(1)(ii), is to be administered in an oral liquid formulation and to be distinguished from methadone by measures such as contrasting color and taste that ensure that the two medications are easily distinguished. In addition, § 291.505(k)(1)(iii) prohibits take-home doses of LAAM. Any LAAM patient who would be eligible for take-home doses of methadone may be switched to methadone when exceptional circumstances make it impossible for the patient to conform to the applicable LAAM dosing schedule.

Former § 291.505(d)(13) mandated that record systems comply with all Federal and State reporting requirements relevant to methadone. This interim final rule revises § 291.505(d)(13) to require compliance with all Federal and State reporting requirements relevant to the treatment of narcotic addiction.

As noted, the interim final rule changes the methadone specific title of most program forms to one applicable to all narcotic treatment drugs. However, since LAAM is not approved for detoxification, new § 291.505(h)(1) retains the methadone-specific title of Form FDA 2636, "Hospital Request for Methadone Detoxification Treatment."

VII. Environmental Impact

The agencies have determined under 21 CFR 25.24(a)(8) and (a)(11) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

VIII. Economic Impact

FDA and NIDA have examined the economic consequences of this interim final rule in accordance with Executive Order 12291 and the Regulatory Flexibility Act (Pub. L. 96–354). There are two provisions in this rule that will impose additional costs on those narcotic treatment programs that choose to use LAAM for treating patients:

First, § 291.505(d)(1)(iii)(B)(6) requires that an initial pregnancy test and analysis shall be performed for each prospective female patient of childbearing potential before admission to LAAM maintenance treatment, and

that monthly pregnancy tests and analyses shall be performed on these female patients. Information obtained from NIDA indicates that this requirement will result in annual costs totaling approximately $820,000. This estimate is based on approximately 34,000 female patients of childbearing age approximately 25 percent of whom will be candidates for LAAM therapy, and approximately $8 for each test analysis, repeated monthly.

Second, NIDA has estimated that the cost of administering LAAM is approximately $2.85 more per patient per week than the cost of administering methadone. Assuming that one-fourth of the approximately 104,000 patients currently enrolled in narcotic treatment programs is administered LAAM (approximately 26,000 patients), the additional cost for the patients who receive LAAM would be approximately $74,000 per week, or $3.8 million per year.

Therefore, the total cost to narcotic treatment programs resulting from this regulation is approximately $4.6 million per year. Importantly, this is the estimated additional cost associated with administering LAAM compared to existing therapy with methadone. Because LAAM can be administered on an every other day, or thrice weekly schedule, the concomitant reduction in clinic attendance will reduce the overall treatment costs to treatment programs that choose to provide LAAM therapy. This anticipated reduction in overall treatment cost should more than offset the estimated additional costs associated with administering LAAM.

Accordingly, the agencies conclude that this rule is not a major rule as defined by Executive Order 12291. For similar reasons, the agencies certify, in accordance with Pub. L. 96–354, that this rule will not have a significant impact on a substantial number of small entities.

IX. Paperwork Reduction Act

This interim final rule contains information collections which are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1980. However, most of the recordkeeping and reporting requirements that would result from this interim rule have already been approved by OMB through July 31, 1995, under number 0910–0140, "Methadone in Maintenance Detoxification, Joint Revisions of Conditions for Use."

There are two new information collection requirements in this interim rule that were not included in number 0910–0140. There are, as explained below, no measurable burden estimates for these requirements.

1. Section 291.505(k)(1)(i)(C) requires that a licensed physician assume responsibility for the amount of narcotic drug administered or dispensed and shall record, date, and sign or countersign in each patient's record each change in dosage schedule. This provision, which applies to LAAM, contains the same requirements as current § 291.505(d)(6)(ii), which pertains to methadone. These requirements are customary and usual practices within the medical and rehabilitative communities, and require no assessment for respondent burden hours or costs.

2. Section 291.505(l) requires that the sponsor indicate on forms FDA–2632, FDA–2633, FDA–2635, or FDA–2636 which treatment drug is being utilized. These forms are approved by OMB under number 0910–0140. The burden associated with this requirement is negligible.

X. Request for Comments

Interested persons may, on or before September 20, 1993, submit to the Dockets Management Branch (address above) written comments regarding this interim final rule. Two copies of any comments are to be submitted, except that individuals may submit one copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Received comments may be seen in the office above between 9 a.m. and 4 p.m., Monday through Friday.

List of Subjects in 21 CFR Part 291

Health professions, LAAM, Methadone, Reporting and recordkeeping requirements.

Therefore, under the Comprehensive Drug Abuse Prevention and Control Act of 1970, the Narcotic Addict Treatment Act of 1974, and applicable delegations of authority thereunder, and under authority delegated to the Commissioner of Food and Drugs, 21 CFR part 291 is amended as follows:

PART 291—DRUGS USED FOR TREATMENT OF NARCOTIC ADDICTS

1. The authority citation for 21 CFR part 291 continues to read as follows:

Authority: Secs. 505, 701 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 355, 371); 21 U.S.C. 823; secs. 301(d), 548, 1976 of the Public Health Service Act (42 U.S.C. 241(d), 290ee–3, 300y–11); 42 U.S.C. 257a.

2. Section 291.501 is revised to read as follows:

§ 291.501 Narcotic drugs in the maintenance treatment of narcotic addicts.

(a) The Food and Drug Administration, the National Institute on Drug Abuse, and the Drug Enforcement Administration, Department of Justice, recognize that the use of narcotic drugs in the prolonged maintenance of narcotic dependence has been shown to be an effective part of a total treatment effort in the management and rehabilitation of selected narcotic addicts. It is also recognized that a number of dangers and possible abuses may arise from such efforts if professional services and controls are inadequately applied.

(b) Therefore, the Commissioner of Food and Drugs, the Director of the National Institute on Drug Abuse, and the Administrator of the Drug Enforcement Administration, Department of Justice, agree that interested professionals, municipalities, and organizations should be allowed to use narcotic drugs in the medical treatment of narcotic addiction within a framework of adequate controls designed to protect the individual patients and the community. Narcotic drugs that are to be used as part of the treatment of narcotic addiction must have an approved new drug application for such use. To facilitate this purpose, the Food and Drug Administration, the National Institute on Drug Abuse, and the Drug Enforcement Administration, Department of Justice, have jointly agreed upon acceptable conditions for the use of narcotic drugs in a treatment program, which are set forth in § 291.505. In addition, such other provisions of the Federal narcotic laws and regulations as are applicable must also be observed.

3. Section 291.505 is amended by revising paragraphs (b)(2)(v), (b)(2)(vi)(D), (c)(4)(i), (c)(4)(ii), the last sentence in paragraph (d)(1)(i)(C), paragraph (d)(1)(ii), the first sentence in paragraph (d)(1)(iii)(B)(*1*) and by removing the word "methadone" in the two places it appears in paragraph (d)(1)(iii)(B)(*1*), by adding new paragraph (d)(1)(iii)(B)(*6*), by revising the second sentence in paragraph (d)(1)(iii)(C), paragraph (d)(1)(iv), by adding a new sentence after the second sentence in paragraph (d)(3)(i), by adding new paragraph (d)(4)(v), by revising the paragraph headings of paragraphs (d)(6) and (d)(6)(i), by removing paragraph (d)(6)(ii) and reserving it, by revising the second sentence in paragraph (d)(13)(i), in paragraph (f)(2)(viii) by removing the phrase "paragraph (k) of this section" and adding in its place "paragraph (l) of this section", by revising paragraph

(h)(1), by redesignating paragraph (k) as paragraph (l) and revising it, and by adding new paragraph (k) to read as follows:

§ 291.505 Conditions for the use of narcotic drugs; appropriate methods of professional practice for medical treatment of the narcotic addiction of various classes of narcotic addicts under section 4 of the Comprehensive Drug Abuse Prevention and Control Act of 1970.

* * * * *

(b) * * *

(2) * * *

(v) *Approved narcotic drugs for use in treatment programs.* The following narcotic drugs have been approved for use in the treatment of narcotic addiction: Methadone and Levo-*Alpha*-Acetyl-Methadol (LAAM).

(vi) * * *

(D) Requests for authorization should be submitted to the address specified in paragraph (l) of this section.

* * * * *

(c) * * *

(4) * * *

(i) Form FDA–2632 "Application for Approval of Use of Narcotic Drugs in a Treatment Program." This form, required by paragraph (l) of this section, shall be completed and signed by the program sponsor and submitted in duplicate to the Food and Drug Administration and the State authority.

(ii) Form FDA–2633 "Medical Responsibility Statement for Use of Narcotic Drugs in a Treatment Program." This form, required by paragraph (l) of this section, shall be completed and signed by each licensed physician authorized to administer or dispense narcotic drugs and submitted in duplicate to the Food and Drug Administration and the State authority. The names of any other persons licensed by law to administer or dispense narcotic drugs working in the program shall be listed even if they are not responsible for administering or dispensing the drug at the time the application is submitted.

* * * * *

(d)(1) * * * (i) * * *

(C) * * * The program physician shall complete and record the statement before the program administers any narcotic drug to the patient.

(ii) *Voluntary participation, informed consent.* The person responsible for the program shall ensure that: A patient voluntarily chooses to participate in a program; all relevant facts concerning the use of the narcotic drug used by the program are clearly and adequately explained to the patient; all patients, with full knowledge and understanding of its contents, sign the "Consent to Treatment with an Approved Narcotic Drug" Form FDA–2635 (see paragraph (l) of this section); a parent, legal guardian, or responsible adult designated by the State authority (e.g., "emancipated minor" laws) sign for patients under the age of 18 the second part of Form FDA–2635 "Consent to Treatment with an Approved Narcotic Drug."

(iii) * * *

(B) *Pregnant patients.* (*1*) Pregnant patients, regardless of age, who have had a documented narcotic dependency in the past and who may return to narcotic dependency, with all its attendant dangers during pregnancy, may be placed on a comprehensive maintenance regimen, except as provided in paragraph (d)(1)(iii)(B)(*6*) of this section. * * *

* * * * *

(*6*) Patients who are or become pregnant shall not be started or continued on LAAM, except by the written order of a physician who determines this to be the best choice of therapy for that patient. Clinics providing treatment with LAAM must advise all patients of childbearing potential of the risks of LAAM and make a medical evaluation available to all patients who become pregnant while taking the drug. An initial pregnancy test shall be performed for each prospective female patient of childbearing potential before admission to LAAM comprehensive maintenance treatment and monthly pregnancy tests performed thereafter on such female patients in LAAM comprehensive maintenance treatment. Analysis of such tests shall be performed in a laboratory approved under the Clinical Laboratory Improvement Amendments of 1988 or in a laboratory certified by a State or private accrediting body approved by the Health Care Financing Administration.

(C) * * * For patients meeting these criteria, the quantity of take-home medication, if take-home medication is permitted for the narcotic drug, will be determined in the reasonable clinical judgment of the program physician, but in no case may the quantity of take-home medication be greater than would have been allowed at the time the patient voluntarily terminated previous treatment. * * *

(iv) *Special limitation; treatment of patients under 18 years of age.* (A) A person under 18 years of age is required to have had two documented attempts at short-term detoxification or drug-free treatment to be eligible for maintenance treatment, except as provided in paragraph (d)(1)(iv)(B) of this section. A 1-week waiting period is required after such a detoxification attempt, however, before an attempt is repeated. The program physician shall document in the patient's record that the patient continues to be or is again physiologically dependent on narcotic drugs. No person under 18 years of age may be admitted to a maintenance treatment program unless a parent, legal guardian, or responsible adult designated by the State authority (e.g., "emancipated minor" laws) completes and signs consent form, Form FDA–2635 "Consent to Treatment with an Approved Narcotic Drug."

(B) A person under 18 years of age shall not be admitted to LAAM maintenance treatment.

* * * * *

(3) * * * (i) * * * A pregnancy test is required for any woman of childbearing potential before she may be administered LAAM as directed in paragraph (d)(1)(iii)(B)(*1*) of this section.

* * *

* * * * *

(4) * * *

(v) *Authorized dispensers of narcotic drugs; responsibility.* A narcotic drug may be administered or dispensed only by a practitioner licensed under the appropriate State law and registered under the appropriate State and Federal laws to order narcotic drugs for patients, or by an agent of such a practitioner, supervised by and under the order of the practitioner. This agent is required to be a pharmacist, registered nurse, or licensed practical nurse, or any other health care professional authorized by Federal and State law to administer or dispense narcotic drugs. The licensed practitioner assumes responsibility for the amounts of narcotic drugs administered or dispensed and shall record and countersign all changes in dosage schedule.

* * * * *

(6) *Use of methadone in a treatment program; frequency of attendance; quantity of take-home medication; dosage of methadone; initial and stabilization*—(i) *Dosage and responsibility.* * * *

(ii) [Reserved]

* * * * *

(13) * * *

(i) * * * This system is required to comply with all Federal and State reporting requirements relevant to narcotic drugs approved for use in treatment of narcotic addiction. * * *

* * * * *

(h) *Denial or revocation of approval.* (1) Complete or partial denial or revocation of approval of an application

to receive shipments of narcotic drugs (Forms FDA–2632 "Application for Approval of Use of Narcotic Drugs in a Treatment Program" and FDA–2636 "Hospital Request for Methadone Detoxification Treatment") may be proposed to the Commissioner of Food and Drugs by the Director of the Food and Drug Administration's Center for Drug Evaluation and Research, on his or her own initiative or at the request of representatives of the Drug Enforcement Administration, Department of Justice, National Institute of Drug Abuse, the State authority, or any other interested person.

* * * * *

(k) *Use of narcotics other than methadone in a treatment program.* Narcotic drug products other than methadone that have been approved for treatment of narcotic addiction are listed in paragraph (b)(2)(v) of this section. Detailed information on the conditions for use of narcotic drug products other than methadone, with the exception of take-home and dosage form requirements, can be found in the respective approved product labeling. Treatment programs shall review the most recent approved product labeling for up-to-date information on important treatment parameters for each drug. Deviation from doses, frequencies, and conditions of usage described in the approved labeling shall be justified in the patient's record. Treatment programs that dispense narcotics other than methadone shall conform with the requirements set forth under paragraphs (a), (b), (c), (d)(1) through (d)(5), (d)(8) through (d)(14), and (e) through (l) of this section. Specifics regarding take-home and dosage form requirements along with any additional requirements are set forth in this paragraph.

(1) *LAAM*—(i) *Dosage and responsibility for administration.* After a patient's tolerance to LAAM is established, LAAM shall be administered no more frequently than every other day. Dosage of LAAM shall be individualized at doses, frequencies, and under conditions of usage described in approved labeling and as follows:

(A) *New patients.* The persons responsible for the program shall ensure that the initial dose of LAAM to a patient whose tolerance for the drug is unknown does not exceed 40 milligrams.

(B) *Stabilized methadone maintenance patient.* The persons responsible for the program shall ensure that the initial dose of LAAM for a previously stabilized methadone maintenance patient is less than or equal to 1.3 times the patient's daily methadone dose, not to exceed 120 milligrams.

(C) A licensed physician shall assume responsibility for the amount of the narcotic drug administered or dispensed and shall record, date, and sign or countersign in each patient's record each change in dosage schedule.

(D) The administering licensed physician shall ensure that a single dose of LAAM greater than 140 milligrams is justified in the patient's record.

(ii) *Dosage form.* LAAM may be administered in oral form when used in a maintenance treatment program. Hospitalized patients under care for a medical or surgical condition are permitted to receive LAAM in oral form when the attending physician judges it advisable. Although syrup concentrate or other formulations may be distributed to the program, all oral medication is required to be administered in a liquid formulation. Clinics that administer both LAAM and methadone shall take appropriate measures, including contrasting color and taste, to ensure that dosage forms of LAAM and methadone are easily distinguished.

(iii) *Take-home medication.* Take-home doses of LAAM are not permitted. A patient who is eligible for one or more take-home doses of methadone under paragraph (d)(6) of this section and who is unable to conform to the applicable mandatory LAAM dosing schedule because of exceptional circumstances such as illness, personal or family crises, travel, or other hardship, or official State holidays, may be temporarily transferred to methadone. Take-home doses of methadone for a patient eligible for a planned temporary discontinuation of treatment with LAAM shall be individualized at doses, frequencies, and under conditions of usage described in the approved labeling and the applicable provisions for take-home methadone medication under paragraph (d)(6) of this section. The maximum number of take-home doses of methadone shall be determined in accordance with the provisions of 21 CFR 291.505(d)(6)(v) and (d)(6)(vi).

(2) [Reserved]

(l) *Program forms.* The program sponsor must ensure that the following forms are completed by the proper program staff and submitted to the appropriate State authority and the Division of Scientific Investigations, Regulatory Management Branch (HFD–342), Food and Drug Administration, 7520 Standish Pl., Rockville, MD 20855. The sponsor will indicate on the appropriate form which treatment drug is being utilized. Forms are available upon request from the Regulatory Management Branch (HFD–342) at the same address.

FORMS

FDA–2632 Application for Approval of Use of Narcotic Drugs in a Treatment Program.
FDA–2633 Medical Responsibility Statement for Use of Narcotic Drugs in a Treatment Program.
FDA–2635 Consent to Treatment with an Approved Narcotic Drug.
FDA–2636 Hospital Request for Methadone Detoxification Treatment.

(Approved by the Office of Management and Budget under number 0910–0140.)

Michael R. Taylor,

Deputy Commissioner for Policy.

Dated: April 8, 1993.

Richard A. Millstein,

Acting Director, National Institute on Drug Abuse.

[FR Doc. 93-17134 Filed 7–19–93; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF EDUCATION

34 CFR Parts 608 and 609

RIN 1840–AB74

Strengthening Historically Black Colleges and Universities Program and Strengthening Historically Black Graduate Institutions Program

AGENCY: Department of Education.

ACTION: Final regulations.

SUMMARY: The Secretary amends the regulations governing the Strengthening Historically Black Colleges and Universities Program and the Strengthening Historically Black Graduate Institutions Program, each of which is authorized under Title III of the Higher Education Act of 1965, as amended (HEA). The regulations are needed to implement changes made to Title III of the HEA by the Higher Education Amendments of 1992. These programs provide grants to assist eligible institutions in strengthening their physical plants, academic resources, and student services so that they may continue to participate in fulfilling the goal of equality of educational opportunity.

EFFECTIVE DATE: These regulations take effect either 45 days after publication in the **Federal Register** or later if the Congress takes certain adjournments. If you want to know the effective date of these regulations, call or write the Department of Education contact person. A document announcing the effective date will be published in the **Federal Register.**

FOR FURTHER INFORMATION CONTACT: Elwood L. Bland, U.S. Department of

Education, 400 Maryland Avenue SW., room 3042, ROB–3, Washington, DC 20202–5336. Telephone: (202) 708–9926. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

SUPPLEMENTARY INFORMATION: The Strengthening Historically Black Colleges and Universities (HBCU) Program and Strengthening Historically Black Graduate Institutions Program provide grants to assist eligible institutions in strengthening their physical plants, academic resources, and student services so that they may continue to participate in fulfilling the goal of equality of educational opportunity.

These programs address National Education Goal 5, which states that every adult American will possess the knowledge and skills necessary to compete in a global economy and assume the responsibilities of citizenship. The program furthers Goal 5 by assisting institutions in establishing and strengthening their physical plants, academic resources, and student services so that these institutions can provide equal educational opportunities for all adult Americans.

The major statutory change that is being incorporated into both regulations is the requirement that each institution applying for funds submit a comprehensive development plan describing its goals for financial management and academic programs and how the institution intends to achieve those goals. Other statutory changes that apply to both programs include the expansion of the type of allowable activities that may be carried out under a grant.

Other statutory changes that apply only to the HBCU program include the raising of the minimum grant from $350,000 to $500,000, and a change in the formula for allotting funds among eligible institutions. Under the latter change, 25 percent of each year's HBCU appropriation is allotted to eligible institutions based upon the relationship between the percentage of graduates of an eligible institution who, within five years of graduating with baccalaureate degrees, are attending graduate or professional schools and are enrolled in degree programs in disciplines in which Blacks are underrepresented, and the percentage of such graduates in all eligible institutions. The following explains how funds will be allotted to institutions under this latter change using fiscal year 1994 funds as an example.

For fiscal year 1994, October 1, 1993 through September 30, 1994, the relevant school year for attending graduate or professional school and being enrolled in relevant degree programs will be school year 1992–93. Thus, each eligible institution will report the number of its graduates who attended a graduate or professional school during school year 1992–93, enrolled in a degree program in a discipline in which Blacks are underrepresented at that school during that school year, and received a baccalaureate degree during any of the five preceding school years, i.e., school years 1987–88, 1988–89, 1989–90, 1990–91, and 1991–92. The institution will also report the number of its graduates who received a baccalaureate degree during 1987–88, 1988–89, 1989–90, 1990–91, and 1991–92. (In order for a junior or community college to report its graduates in this formula, it must determine which of its graduates obtained a baccalaureate degree at a four-year institution during the school years 1987–88 through 1991–92, and which of those graduates enrolled in the relevant programs in graduate or professional school during school year 1992–93.)

The Secretary divides the first number reported by the institution by the second reported number to obtain a percentage for that institution. The Secretary calculates a percentage for each reporting institution, obtains a sum of all the percentages, and divides each institution's percentage by the sum of the percentages. The Secretary then multiplies that resulting number by 25 percent of the fiscal year 1994 HBCU appropriation to obtain that institution's allotment.

In the Strengthening Historically Black Graduate Institutions Program, the changes include the addition of 11 graduate and professional institutions or programs to the previous five eligible grantee institutions, and a change in the funding of these institutions. In general, the new institutions receive funds under this program only if the annual appropriation for the program exceeds $12 million.

On February 23, 1993, the Secretary published a notice of proposed regulations for this program in the **Federal Register**, (58 FR 11158). There are no differences between the NPRM and these final regulations except for the statutory changes explained above.

Public Comment

In the NPRM the Secretary invited comments on the proposed regulations concerning the comprehensive development plan. The Secretary did not receive any comments.

Executive Order 12291

These regulations have been reviewed in accordance with Executive Order 12291. They are not classified as major because they do not meet the criteria for major regulations established in the order.

Intergovernmental Review

This program is subject to the requirements of Executive Order 12372 and the regulations in 34 CFR part 79. The objective of the Executive order is to foster an intergovernmental partnership and a strengthened federalism by relying on processes developed by State and local governments for coordination and review of proposed Federal financial assistance.

In accordance with the order, this document is intended to provide early notification of the Department's specific plans and actions for this program.

Assessment of Educational Impact

In the notice of proposed rulemaking, the Secretary requested comments on whether the proposed regulations would require transmission of information that is being gathered by or is available from any other agency or authority of the United States.

Based on the response to the proposed rules and on its own review, the Department has determined that the regulations in this document do not require transmission of information that is being gathered by or is available from any other agency or authority of the United States.

Waiver of Proposed Rulemaking

In addition to the changes made to 34 CFR parts 608 and 609 that were subject to public comment in a notice of proposed rulemaking, the Secretary has revised the regulations to implement statutory changes made to each program by the Higher Education Amendments of 1992 (Pub. L. 102–325).

It is the practice of the Secretary to offer interested parties the opportunity to comment on proposed regulations in accordance with section 431(b)(2)(A) of the General Education Provisions Act (20 U.S.C. 1232(b)(2)(A)) and the Administrative Procedure Act (5 U.S.C. 553). However, since these revisions merely incorporate statutory changes into the regulations and do not implement substantive policy, public comment could have no effect. Therefore, the Secretary has determined pursuant to 5 U.S.C. 553(b)(B) that

further public comment on the regulations is unnecessary and contrary to the public interest.

List of Subjects in 34 CFR Parts 608 and 609

Colleges and universities, Grant programs—education, Reporting and recordkeeping requirements.

(Catalog of Federal Domestic Assistance Number: 84.031B Strengthening Historically Black Colleges and Universities Program and Strengthening Historically Black Graduate Institutions Program)

Dated: July 9, 1993.

Richard W. Riley,

Secretary of Education.

The Secretary amends Title 34 of the Code of Federal Regulations by revising parts 608 and 609 to read as follows:

PART 608—STRENGTHENING HISTORICALLY BLACK COLLEGES AND UNIVERSITIES PROGRAM

Subpart A—General

Sec.

608.1 What is the Strengthening Historically Black Colleges and Universities (HBCU) Program?
608.2 What institutions are eligible to receive a grant under the HBCU Program?
608.3 What regulations apply?
608.4 What definitions apply?

Subpart B—What Kind of Projects Does the Secretary Fund?

608.10 What activities may be carried out under a grant?
608.11 What is the duration of a grant?

Subpart C—How Does an Eligible Institution Apply for a Grant?

608.20 What are the application requirements for a grant under this part?
608.21 What is a comprehensive development plan and what must it contain?

Subpart D—How Does the Secretary Make a Grant?

608.30 What is the procedure for approving and disapproving grant applications?
608.31 How does the Secretary determine the amount of a grant?

Subpart E—What Conditions Must a Grantee Meet?

608.40 What are allowable costs and what are the limitations on allowable costs?
608.41 What are the audit and repayment requirements?
608.42 Under what conditions does the Secretary terminate a grant?

Authority: 20 U.S.C. 1060 through 1063a, 1063c, 1066, 1068, 1069c, 1069d, and 1069f, unless otherwise noted.

Subpart A—General

§ 608.1 What is the Strengthening Historically Black Colleges and Universities (HBCU) Program?

The Strengthening Historically Black Colleges and Universities Program, hereafter called the HBCU Program, provides grants to Historically Black Colleges and Universities (HBCUs) to assist these institutions in establishing and strengthening their physical plants, academic resources and student services so that they may continue to participate in fulfilling the goal of equality of educational opportunity.

(Authority: 20 U.S.C. 1060)

§ 608.2 What institutions are eligible to receive a grant under the HBCU Program?

(a) To be eligible to receive a grant under this part, an institution must—

(1) Satisfy section 322(2) of the Higher Education Act of 1965, as amended (HEA);

(2) Be legally authorized by the State in which it is located—

(i) To be a junior or community college; or

(ii) To provide an educational program for which it awards a bachelor's degree; and

(3) Be accredited or preaccredited by a nationally recognized accrediting agency or association.

(b) The Secretary has determined that the following institutions satisfy section 322(2) of the HEA.

Alabama

Alabama A&M University-Huntsville
Alabama State University—Montgomery
Carver State Technical College—Mobile
Concordia College—Selma
Fredd State Technical College—Tuscaloosa
J.F. Drake State Technical College—Huntsville
S.D. Bishop State Junior College—Mobile
Lawson State College—Birmingham
Miles College—Birmingham
Oakwood College—Huntsville
Selma University—Selma
Stillman College—Tuscaloosa
Talladega University—Talladega
Trenholm State Technical College—Montgomery
Tuskegee University—Tuskegee

Arkansas

Arkansas Baptist College—Little Rock
Philander Smith College—Little Rock
Shorter College—Little Rock
University of Arkansas at Pine Bluff—Pine Bluff

Delaware

Delaware State College—Dover

District of Columbia

Howard University
University of the District of Columbia

Florida

Bethune Cookman College—Daytona Beach
Edward Waters College—Jacksonville
Florida A&M University—Tallahassee
Florida Memorial College—Miami

Georgia

Albany State College—Albany
Atlanta University—Atlanta
Clark College—Atlanta
Fort Valley State College—Fort Valley
Interdenominational Theological Center—Atlanta
Morehouse College—Atlanta
Morris Brown College—Atlanta
Paine College—Augusta
Savannah State College—Savannah
Spelman College—Atlanta

Kentucky

Kentucky State University—Frankfurt

Louisiana

Dillard University—New Orleans
Grambling State University—Grambling
Southern University A&M College—Baton Rouge
Southern University at New Orleans—New Orleans
Southern University at Shreveport—Shreveport
Xavier University of Louisiana—New Orleans

Maryland

Bowie State College—Bowie
Coppin State College—Baltimore
Morgan State University—Baltimore
University of Maryland-Eastern Shore—Princess Anne

Michigan

Lewis College of Business—Detroit

Mississippi

Alcorn State University—Lorman
Coahoma Junior College—Clarksdale
Jackson State University—Jackson
Mary Holmes College—West Point
Mississippi Valley State University—Itta Bena
Prentiss Normal and Industrial Institute—Prentiss
Rust College—Holly Springs
Tougaloo College—Tougaloo
Hinds Junior College (Utica Jr Coll)—Raymond

Missouri

Lincoln University—Jefferson City
Harris-Stowe State College—St. Louis

North Carolina

Barber-Scotia College—Concord
Bennett College—Greensboro
Elizabeth City State University—Elizabeth City
Fayetteville State University—Fayetteville
Johnson C. Smith University—Charlotte
Livingstone College—Salisbury
North Carolina A&T State University—Greensboro
North Carolina Central University—Durham
Saint Augustine's College—Raleigh
Shaw University—Raleigh
Winston-Salem State University—Winston Salem

Ohio

Central State University—Wilberforce
Wilberforce University—Wilberforce

Oklahoma

Langston University—Langston

Pennsylvania

Cheyney State University—Cheyney
Lincoln University—Lincoln

South Carolina

Allen University—Columbia
Benedict College—Columbia
Claflin College—Orangeburg
Clinton Junior College—Rock Hill
Denmark Technical College—Denmark
Morris College—Sumter
South Carolina State College—Orangeburg
Voorhees College—Denmark

Tennessee

Fisk University—Nashville
Knoxville College—Knoxville
Lane College—Jackson
LeMoyne-Owen College—Memphis
Meharry Medical College—Nashville
Morristown College—Morristown
Tennessee State University—Nashville

Texas

Huston-Tillotson College—Austin
Jarvis Christian College—Hawkins
Paul Quinn College—Waco
Prairie View A&M University—Prairie View
Saint Philip's College—San Antonio
Southwestern Christian College—Terrell
Texas College—Tyler
Texas Southern University—Houston
Wiley College—Marshall

U.S. Virgin Islands

College of the Virgin Islands—St. Thomas

Virginia

Hampton University—Hampton
Norfolk State University—Norfolk
Saint Paul's College—Lawrenceville
Virginia State University—Petersburg
Virginia Union University—Richmond

West Virginia

Bluefield State College—Bluefield
West Virginia State College—Institute

(c) If an institution identified in paragraph (b) of this section has merged with another institution, and, as a result of the merger, would not otherwise qualify to receive a grant under this part, that institution may nevertheless qualify to receive a grant under this part if—

(1) The institution would have qualified to receive a grant before the merger; and

(2) The institution was eligible to receive a grant under the Special Needs Program in any fiscal year prior to fiscal year 1986. (The Special Needs Program was authorized under Title III, Part B, of the HEA before 1986.)

(d) For the purpose of paragraph (a)(3) of this section, the Secretary publishes a list in the **Federal Register** of nationally recognized accrediting agencies and associations.

(e) Notwithstanding any other provision of this section, for each fiscal year—

(1) The University of the District of Columbia is eligible to receive a grant under this part only if the amount of the grant it is scheduled to receive under § 608.31 exceeds the amount it is scheduled to receive in the same fiscal year under the District of Columbia Self-Government and Governmental Reorganization Act; and

(2) Howard University is eligible to receive a grant under this part only if the amount of the grant it is scheduled to receive under § 608.31 exceeds the amount it is scheduled to receive in the same fiscal year under the Act of March 2, 1867, 20 U.S.C. 123.

(Authority: 20 U.S.C. 1061, 1063, and 1063a; House Report 99–861, 99th Cong., 2d Sess. p. 367, September 22, 1986; Senate Report 99–296, 99th Cong., 2d Sess. p. 23, May 12, 1986; Cong. Rec. of June 3, 1986, pp. 6588–6589)

§ 608.3 What regulations apply?

The following regulations apply to this part:

(a) The Department of Education General Administrative Regulations (EDGAR) as follows:

(1) 34 CFR part 74 (Administration of Grants to Institutions of Higher Education, Hospitals, and Nonprofit Organizations).

(2) The following sections of 34 CFR part 75 (Direct Grant Programs): §§ 75.1–75.104, 75.125–75.129, 75.190–75.192, 75.230–75.261, 75.500, 75.510–75.519, 75.524–75.534, 75.580–75.903, and 75.910;

(3) 34 CFR part 77 (Definitions that Apply to Department Regulations).

(4) 34 CFR part 79 (Intergovernmental Review of Department of Education Programs and Activities).

(5) 34 CFR part 82 (New Restrictions on Lobbying).

(6) 34 CFR part 85 (Governmentwide Debarment and Suspension (Nonprocurement) and Governmentwide Requirements for Drug-Free Workplace (Grants)).

(7) 34 CFR part 86 (Drug-Free Schools and Campuses).

(b) The regulations in this part 608.

(Authority: 20 U.S.C. 1060–1063a, 1063c)

§ 608.4 What definitions apply?

(a) *Definitions in EDGAR.* The following terms used in this part are defined in 34 CFR 77.1:

Applicant
Application
Award
Budget
EDGAR
Equipment
Fiscal year
Grant period
Private
Project period
Public
Secretary

(b) *Other definitions.* The following definitions also apply to this part:

Accredited means the status of public recognition which a nationally recognized accrediting agency or association grants to an institution which meets certain established qualifications and educational standards.

Graduate means a student who has attended an institution for at least three semesters and fulfilled academic requirements for undergraduate studies in not more than five consecutive school years.

Junior or community college means an institution of higher education that—

(i) Admits as regular students persons who are beyond the age of compulsory school attendance in the State in which the institution is located and who have the ability to benefit from the training offered by the institution;

(ii) Does not provide an educational program for which it awards a bachelor's degree or an equivalent degree; and

(iii) Provides an educational program of not less than 2 years that is acceptable for full credit toward such a degree; or offers a 2-year program in engineering, mathematics, or the physical or biological sciences, designed to prepare a student to work as a technician or at the semiprofessional level in engineering, scientific, or other technological fields requiring the understanding and application of basic engineering, scientific, or mathematical principles of knowledge.

Pell Grant means the grant program authorized by Title IV–A–1 of the Higher Education Act of 1965, as amended.

Preaccredited means a status, also called candidacy status, that a nationally recognized accrediting agency or association, recognized by the Secretary to grant that status, has accorded an unaccredited institution that is making reasonable progress toward accreditation.

School year means the period of time from July 1 of one calendar year through June 30 of the subsequent calendar year. (A "school year" is equivalent to an "award year" under the Pell Grant Program.)

(Authority: 20 U.S.C. 1060–1063)

Subpart B—What Kind of Projects Does the Secretary Fund?

§ 608.10 What activities may be carried out under a grant?

(a) *Allowable activities.* Except as provided in paragraph (b) of this

section, a grantee may carry out the following activities under this part—

(1) Purchase, rental, or lease of scientific or laboratory equipment for educational purposes, including instructional or research purposes;

(2) Construction, maintenance, renovation, and improvement in classroom, library, laboratory, and other instructional facilities, including purchase or rental of telecommunications technology equipment or services;

(3) Support of faculty exchanges, faculty development and faculty fellowships to assist these faculty members in attaining advanced degrees in their fields of instruction;

(4) Academic instruction in disciplines in which Black Americans are underrepresented;

(5) Purchase of library books, periodicals, microfilm, and other educational materials, including telecommunications program materials;

(6) Tutoring, counseling, and student service programs designed to improve academic success;

(7) Funds and administrative management, and acquisition of equipment for use in strengthening funds management;

(8) Joint use of facilities, such as laboratories and libraries;

(9) Establishing or improving a development office to strengthen or improve contributions from alumni and the private sector;

(10) Establishing or enhancing a program of teacher education designed to qualify students to teach in a public elementary or secondary school in the State that shall include, as part of the program, preparation for teacher certification;

(11) Establishing community outreach programs that will encourage elementary and secondary students to develop the academic skills and the interest to pursue postsecondary education; and

(12) Other activities that it proposes in its application that contribute to carrying out the purpose of this part and are approved by the Secretary as part of the review and acceptance of the application.

(b) *Unallowable activities.* A grantee may not carry out the following activities under this part—

(1) Activities that are not included in the grantee's approved application;

(2) Activities described in paragraph (a)(12) of this section that are not approved by the Secretary;

(3) Activities that are inconsistent with any State plan of higher education that is applicable to the institution;

(4) Activities that are inconsistent with a State plan for desegregation of higher education that is applicable to the institution;

(5) Activities or services that relate to sectarian instruction or religious worship; and

(6) Activities provided by a school or department of divinity. For the purpose of this section, a "school or department of divinity" means an institution, or a department of an institution, whose program is specifically for the education of students to prepare them to become ministers of religion or to enter upon some other religious vocation, or to prepare them to teach theological subjects.

(c) No award under this part may be used for telecommunications technology equipment, facilities or services, if such equipment, facilities or services are available pursuant to section 396(k) of the Communications Act of 1934.

(Authority: 20 U.S.C. 1062, 1063a, and 1069c)

§ 608.11 What is the duration of a grant?

The Secretary may award a grant under this part for a period of up to five academic years.

(Authority: 20 U.S.C. 1063b(b))

Subpart C—How Does an Eligible Institution Apply for a Grant?

§ 608.20 What are the application requirements for a grant under this part?

In order to receive a grant under this part, an institution must submit an application to the Secretary at such time and in such manner as the Secretary may prescribe. The application must contain—

(a) A description of the activities to be carried out with grant funds;

(b) A description of how the grant funds will be used so that they will supplement and, to the extent practical, increase the funds that would otherwise be made available for the activities to be carried out under the grant and in no case supplant those funds;

(c) (1) A comprehensive development plan as described in § 608.21; or

(2) If an applicant has already submitted a comprehensive development plan as described in § 608.21, a description of the progress the applicant has made in carrying out the goals of its plan;

(d) An assurance that the institution will provide the Secretary with an annual report on the activities carried out under the grant;

(e) An assurance that the institution will provide for, and submit to the Secretary, the compliance and financial audit described in § 608.41;

(f) An assurance that the proposed activities in the application are in accordance with any State plan that is applicable to the institution;

(g) The number of graduates of the applicant institution during the school year immediately preceding the fiscal year for which grant funds are requested; and

(h) The number of graduates of the applicant institution—

(1) Who, within five years of graduating with baccalaureate degrees, attended graduate or professional schools and enrolled in degree programs in disciplines in which Blacks are underrepresented during the school year immediately preceding the fiscal year for which funds are requested; and

(2) Who graduated with baccalaureate degrees during any one of the five school years immediately preceding the school year described in paragraph (h)(1) of this section.

(Approved by the Office of Management and Budget under control number 1840–0113)

(Authority: 20 U.S.C. 1063, 1063a and 1066(b)(2))

§ 608.21 What is a comprehensive development plan and what must it contain?

(a) A comprehensive development plan must describe an institution's strategy for achieving growth and self-sufficiency by strengthening its—

(1) Financial management;

(2) Academic programs; and

(b) The comprehensive development plan must include the following:

(1) An assessment of the strengths and weaknesses of the institution's financial management and academic programs.

(2) A delineation of the institution's goals for its financial management and academic programs, based on the outcomes of the assessment described in paragraph (b)(1) of this section.

(3) A listing of measurable objectives designed to assist the institution to reach each goal with accompanying timeframes for achieving the objectives.

(4) A description of methods, processes, and procedures that will be used by the college or university to institutionalize financial management and academic program practices and improvements developed under the proposed funded activities.

(Approved by the Office of Management and Budget under control number 1840–0113)

(Authority: 20 U.S.C. 1063a)

Subpart D—How Does the Secretary Make a Grant?

§ 608.30 What is the procedure for approving and disapproving grant applications?

The Secretary—

(a) Approves any application that satisfies the requirements of § 608.10 and § 608.20; and

(b) Does not disapprove any application, or any modification of an application, without affording the applicant reasonable notice and opportunity for a hearing.

(Authority: 20 U.S.C. 1063a)

§ 608.31 How does the Secretary determine the amount of a grant?

(a) Except as provided in paragraph (c) of this section, for each fiscal year, the Secretary determines the amount of a grant under this part by-

(1) Multiplying fifty percent of the amount appropriated for the HBCU Program by the following fraction:

Number of Pell Grant recipients at the applicant institution during the school year immediately preceding that fiscal year.

Number of Pell Grant recipients at all applicant institutions during the school year immediately preceding that fiscal year.

(2) Multiplying twenty-five percent of the amount appropriated for the HBCU Program by the following fraction:

Number of graduates of the applicant institution during the school year immediately preceding that fiscal year.

Number of graduates of all applicant institutions during the school year immediately preceding that fiscal year.

(3) Multiplying twenty-five percent of the amount appropriated for the HBCU Program by the following fraction:

The percentage of graduates of an applicant institution who, within five years of graduating with baccalaureate degrees, are in attendance at graduate or professional schools and enrolled in degree programs in disciplines in which Blacks are underrepresented

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The sum of the percentages of those graduates of all applicant institutions.

(4) Adding the amounts obtained in paragraphs (a)(1), (a)(2), and (a)(3) of this section.

(b)(1) For each fiscal year, the numerator in paragraph (a)(3) of this section is calculated by—

(i) Determining the number of graduates of an applicant institution who, within five years of graduating with baccalaureate degrees, attended graduate or professional schools and enrolled in degree programs in disciplines in which Blacks are underrepresented during the school year immediately preceding that fiscal year; and

(ii) Dividing the number obtained in paragraph (b)(1)(i) of this section by the number of graduates of an applicant institution who graduated with baccalaureate degrees during the five school years immediately preceding the school year described in paragraph (b)(1)(i) of this section.

(2) For purposes of this section, the Secretary—

(i) Considers that Blacks are underrepresented in a professional or academic discipline if the percentage of Blacks in that discipline is less than the percentage of Blacks in the general population of the United States; and

(ii) Notifies applicants of the disciplines in which Blacks are underrepresented through a notice in the **Federal Register**, after consulting with the Commissioner of the Bureau of Labor Statistics.

(c) Notwithstanding the formula in paragraph (a) of this section—

(1) For each fiscal year, each eligible institution with an approved application must receive at least $500,000; and

(2) If the amount appropriated for a fiscal year for the HBCU Program is insufficient to provide $500,000 to each eligible institution with an approved application, each grant is ratably reduced. If additional funds become available for the HBCU Program during a fiscal year, each grant is increased on the same basis as it was decreased until the grant amount reaches $500,000.

(d) The amount of any grant that the Secretary determines will not be required by a grantee for the period for which the grant was made is available for reallotment by the Secretary during that period to other eligible institutions under the formula contained in paragraph (a) of this section.

(Authority: 20 U.S.C. 1063)

Subpart E—What Conditions Must a Grantee Meet?

§ 608.40 What are allowable costs and what are the limitations on allowable costs?

(a) *Allowable costs.* Except as provided in paragraphs (b) and (c) of this section, a grantee may expend grant funds for activities that are related to carrying out the allowable activities included in its approved application.

(b) *Supplement and not supplant.* Grant funds shall be used so that they supplement, and to the extent practical, increase the funds that would otherwise be available for the activities to be carried out under the grant, and in no case supplant those funds.

(c) *Limitations on allowable costs.* A grantee may not—

(1) Spend more than fifty percent of its grant award in each fiscal year for costs relating to constructing or maintaining a classroom, library, laboratory, or other instructional facility; or

(2) Use an indirect cost rate to determine allowable costs under its grant.

(Authority: 20 U.S.C. 1062 and 1066)

§ 608.41 What are the audit and repayment requirements?

(a) (1) A grantee shall provide for the conduct of a compliance and financial audit of any funds it receives under this part of a qualified, independent organization or person in accordance with the *Standards for Audit of Governmental Organizations, Programs, Activities, and Functions,* 1981 revision, established by the Comptroller General of the United States. This publication is available from the Superintendent of Documents, U.S. Government Printing Office.

(2) The grantee shall have an audit conducted at least once every two years, covering the period since the previous audit, and the grantee shall submit the audit to the Secretary.

(3) If a grantee is audited under Chapter 75 of Title 31 of the United States Code, the Secretary considers that audit to satisfy the requirements of paragraph (a)(1) of this section.

(b) An institution awarded a grant under this part must submit to the Department of Education Inspector General three copies of the audit required in paragraph (a) of this section within six months after completion of the audit.

(c) Any individual or firm conducting an audit described in this section shall give the Department of Education's Inspector General access to records or other documents necessary to review the results of the audit.

(d) A grantee shall repay to the Treasury of the United States any grant funds it received that it did not expend or use to carry out the allowable activities included in its approved application within ten years following the date of the initial grant it received under this part.

(Authority: 20 U.S.C. 1063a and 1063c)

§ 608.42 Under what conditions does the Secretary terminate a grant?

The Secretary terminates any grant under which funds were not expended if an institution loses—

(a) Its accredited status; or

(b) Its legal authority in the State in which it is located—

(1) To be a junior or community college; or

(2) To provide an educational program for which it awards a bachelor's degree.

(Authority: 20 U.S.C. 1063a)

PART 609—STRENGTHENING HISTORICALLY BLACK GRADUATE INSTITUTIONS PROGRAM

Subpart A—General

Sec.

609.1 What is the Strengthening Historically Black Graduate Institutions Program?
609.2 What institutions are eligible to receive a grant under this part?
609.3 What regulations apply?
609.4 What definitions apply?

Subpart B—What Kind of Project Does the Secretary Fund?

609.10 What activities may be carried out under a grant?
609.11 What is the duration of a grant?

Subpart C—How Does an Eligible Institution Apply for a Grant?

609.20 What are the application requirements for a grant under this part?
609.21 What is a comprehensive development plan and what must it contain?

Subpart D—How Does the Secretary Make a Grant?

609.30 What is the procedure for approving and disapproving grant applications?
609.31 How does the Secretary determine the amount of a grant?

Subpart E—What Conditions Must a Grantee Meet?

609.40 What are the matching requirements?
609.41 What are allowable costs and what are the limitations on allowable costs?
609.42 What are the audit and repayment requirements?
609.43 Under what conditions does the Secretary terminate a grant?

Authority: 20 U.S.C. 1063b and 1063c, unless otherwise noted.

Subpart A—General

§ 609.1 What is the Strengthening Historically Black Graduate Institutions Program?

The Strengthening Historically Black Graduate Institutions Program provides grants to the institutions listed in § 609.2 to assist these institutions in establishing and strengthening their physical plants, development offices, endowment funds, academic resources and student services so that they may continue to participate in fulfilling the goal of equality of educational opportunity in graduate education.

(Authority: 20 U.S.C. 1060 and 1063b)

§ 609.2 What institutions are eligible to receive a grant under this part?

(a) An institution or an institution's qualified graduate program listed in paragraph (b) of this section is eligible to receive a grant under this part if the Secretary determines that the institution is making a substantial contribution to legal, medical, dental, veterinary or other graduate education opportunities for Black Americans.

(b) The institutions and programs referred to in paragraph (a) of this section are—

(1) Morehouse School of Medicine;
(2) Meharry Medical School;
(3) Charles R. Drew Postgraduate Medical School;
(4) Clark Atlanta University;
(5) Tuskegee Institute School of Veterinary Medicine;
(6) Xavier University School of Pharmacy;
(7) Southern University School of Law;
(8) Texas Southern University School of Law and School of Pharmacy;
(9) Florida A&M University School of Pharmaceutical Sciences;
(10) North Carolina Central University School of Law;
(11) Morgan State University's qualified graduate program;
(12) Hampton University's qualified graduate program;
(13) Alabama A&M's qualified graduate program;
(14) North Carolina A&T State University's qualified graduate program;
(15) University of Maryland Eastern Shore's qualified graduate program; and
(16) Jackson State University's qualified graduate program.

(c) An institution that was awarded a grant prior to October 1, 1992 may continue to receive grant payments, regardless of the eligibility of the graduate institutions described in paragraphs (b)(6) through (16) of this section, until the institution's grant period has expired or September 30, 1993, whichever is later.

(d) No institution of higher education or university system may receive more than one grant under this section in any fiscal year.

(Authority: 20 U.S.C. 1063b(e))

§ 609.3 What regulations apply?

The following regulations apply to this part:

(a) The Department of Education General Administrative Regulations (EDGAR) as follows:

(1) 34 CFR part 74 (Administration of Grants to Institutions of Higher Education, Hospitals, and Nonprofit Organizations).

(2) The following sections of 34 CFR part 75 (Direct Grant Programs): §§ 75.1–75.104, 75.125–75.129, 75.190–75.192, 75.230–75.261, 75.500, 75.510–75.519, 75.524–75.534, 75.580–75.903, and 75.901;

(3) 34 CFR part 77 (Definitions that Apply to Department Regulations).

(4) 34 CFR part 79 (Intergovernmental Review of Department of Education Programs and Activities).

(5) 34 CFR part 82 (New Restrictions on Lobbying).

(6) 34 CFR part 85 (Governmentwide Debarment and Suspension (Nonprocurement) and Governmentwide Requirements for Drug-Free Workplace (Grants))

(7) 34 CFR part 86 (Drug-Free Schools and Campuses).

(b) The regulations in this part 609.

(Authority: 20 U.S.C. 1063b)

§ 609.4 What definitions apply?

(a) *Definitions in EDGAR.* The following terms used in this part are defined in 34 CFR 77.1:

Applicant
Application
Award
Budget
EDGAR
Equipment
Fiscal year
Grant period
Private
Project period
Public
Secretary

(b) The following definition applies to a term used in this part:

Qualified graduate program means a graduate or professional program that—

(i) Provides a program of instruction in the physical or natural sciences, engineering, mathematics, or other scientific disciplines in which African Americans are underrepresented;

(ii) Has been accredited or approved by a nationally recognized accrediting agency or association. (The Secretary publishes a list in the **Federal Register** of nationally recognized accrediting agencies and associations.); and

(iii) Has students enrolled in that program when the institution offering the program applies for a grant under this part.

(Authority: 20 U.S.C. 1063b and 1069c)

Subpart B—What Kind of Projects Does the Secretary Fund?

§ 609.10 What activities may be carried out under a grant?

(a) *Allowable activities.* Except as provided in paragraph (b) of this section, a grantee may carry out the following activities under this part—

(1) Purchase, rental, or lease of scientific or laboratory equipment for educational purposes, including instructional or research purposes;

(2) Construction, maintenance, renovation, and improvement in classroom, library, laboratory, and other instructional facilities, including

purchase or rental of telecommunications technology equipment or services;

(3) Support of faculty exchanges, faculty development and faculty fellowships to assist these faculty members in attaining advanced degrees in their fields of instruction;

(4) Academic instruction in disciplines in which Black Americans are underrepresented;

(5) Purchase of library books, periodicals, microfilm, and other educational materials, including telecommunications program materials;

(6) Tutoring, counseling, and student service programs designed to improve academic success;

(7) Funds and administrative management, and acquisition of equipment for use in strengthening funds management;

(8) Joint use of facilities, such as laboratories and libraries;

(9) Establishing or improving a development office to strengthen or improve contributions from alumni and the private sector;

(10) Establishing or enhancing a program of teacher education designed to qualify students to teach in a public elementary or secondary school in the State that shall include, as part of such program preparation for teacher certification;

(11) Establishing community outreach programs that will encourage elementary and secondary students to develop the academic skills and the interest to pursue postsecondary education;

(12) Other activities that it proposes in its application that contribute to carrying out the purpose of this part and are approved by the Secretary;

(13) Establishing or improving a development office to strengthen and increase contributions from alumni and the private sector; and

(14) Establishing and maintaining an institutional endowment under 34 CFR part 628 to facilitate financial independence.

(b) *Unallowable activities.* A grantee may not carry out the following activities under this part—

(1) Activities that are not included in the grantee's approved application;

(2) Activities described in paragraph (a)(12) of this section that are not approved by the Secretary;

(3) Activities that are inconsistent with any State plan of higher education that is applicable to the institution;

(4) Activities that are inconsistent with a State plan for desegregation of higher education that is applicable to the institution;

(5) Activities or services that relate to sectarian instruction or religious worship; and

(6) Activities provided by a school or department of divinity. For the purpose of this section, a "school or department of divinity" means an institution, or a department of an institution, whose program is specifically for the education of students to prepare them to become ministers of religion or to enter upon some other religious vocation, or to prepare them to teach theological subjects.

(c) No award under this part may be used for telecommunications technology equipment, facilities or services, if such equipment, facilities or services are available pursuant to section 396(k) of the Communications Act of 1934.

(Authority: 20 U.S.C. 1062, 1063a, and 1069c)

§ 609.11 What is the duration of a grant?

The Secretary may award a grant under this part for a period of up to five academic years.

(Authority: 20 U.S.C. 1063b(b))

Subpart C—How Does an Eligible Institution Apply for a Grant?

§ 609.20 What are the application requirements for a grant under this part?

In order to receive a grant under this part, an institution must submit an application to the Secretary at such time and in such manner as the Secretary may prescribe. The application must contain—

(a) A description of the activities to be carried out with grant funds and how those activities will improve graduate educational opportunities for Black and low-income students and lead to greater financial independence for the applicant;

(b) A description of how the applicant is making a substantial contribution to the legal, medical, dental, veterinary or other graduate education opportunities for Black Americans;

(c) An assurance from each applicant requesting in excess of $500,000 that 50 percent of the costs of all the activities to be carried out under the grant will come from non-Federal sources;

(d) A description of how the grant funds will be used so that they will supplement, and to the extent practical, increase the funds that would otherwise be made available for the activities to be carried out under the grant and in no case supplant those funds, for the activities described in § 609.10(a)(1) through § 609.10(a)(14);

(e) An assurance that the proposed activities in the application are in accordance with any State plan that is applicable to the institution; and

(f)(1) A comprehensive development plan as described in § 609.21; or

(2) If an applicant has already submitted a comprehensive development plan as described in § 609.21, a description of the progress the applicant has made in carrying out the goals of its plan.

(Approved by the Office of Management and Budget under control number 1840–0113)

(Authority: 20 U.S.C. 1063d and 1066(b)(2))

§ 609.21 What is a comprehensive development plan and what must it contain?

(a) A comprehensive development plan must describe an institution's strategy for achieving growth and self-sufficiency by strengthening its—

(1) Financial management;

(2) Academic programs; and

(b) The comprehensive development plan must include the following:

(1) An assessment of the strengths and weaknesses of the institution's financial management and academic programs.

(2) A delineation of the institution's goals for its financial management and academic programs, based on the outcomes of the assessment described in paragraph (b)(1) of this section.

(3) A listing of measurable objectives designed to assist the institution to reach each goal with accompanying timeframes for achieving the objectives.

(4) A description of methods, processes and procedures that will be used by the college or university to institutionalize financial management and academic program practices and improvements developed under the proposed funded activities.

(Approved by the Office of Management and Budget under control number 1840–0113)

(Authority: 20 U.S.C. 1063a)

Subpart D—How Does the Secretary Make a Grant?

§ 609.30 What is the procedure for approving and disapproving grant applications?

The Secretary approves any application that satisfies the requirements of § 609.10 and § 609.20.

(Authority: 20 U.S.C. 1063a)

§ 609.31 How does the Secretary determine the amount of a grant?

Of the amount appropriated for any fiscal year—

(a)(1) The first $12,000,000 (or any lesser amount appropriated) shall be available only for the purpose of making grants to institutions or programs described in § 609.2(b)(1) through § 609.2(b)(5);

(2) If the sum of the approved applications does not exceed the amount appropriated, the Secretary awards grants in the amounts requested and approved;

(3) If the sum of the approved requests exceeds the sum appropriated, and Morehouse School of Medicine submits an approved request for at least $3,000,000, and the amount appropriated exceeds $3,000,000, the Secretary awards no less than $3,000,000 to Morehouse School of Medicine and reduces the grants to the institutions described in § 609.2(b)(1) through § 609.2(b)(5) as the Secretary considers appropriate, so that the sum of the approved grants equals the amount appropriated; and

(4) If Morehouse School of Medicine submits an approved request for at least $3,000,000 and the amount appropriated does not exceed $3,000,000, Morehouse School of Medicine receives all the appropriated funds; and

(b)(1) Any amount appropriated in excess of $12,000,000 shall be available for the purpose of making grants, in equal amounts not to exceed $500,000, to institutions or programs described in § 609.2(b)(6) through § 609.2(b)(16); and

(2) If any funds remain, the Secretary makes grants to institutions or programs described in § 609.2(b)(1) through § 609.2(b)(16).

(Authority: 20 U.S.C. 1063b)

Subpart E—What Conditions Must a Grantee Meet?

§ 609.40 What are the matching requirements?

If an institution receives a grant in excess of $500,000, it must spend non-Federal funds to meet the cost of at least 50 percent of the activities approved in its application.

(Authority: 20 U.S.C. 1063b)

§ 609.41 What are allowable costs and what are the limitations on allowable costs?

(a) *Allowable costs.* Except as provided in paragraphs (b) and (c) of this section, a grantee may expend grant funds for activities that are reasonably related to carrying out the allowable activities included in its approved application.

(b) *Supplement and not supplant.* A grantee shall use grant funds so that they supplement, and to the extent practical, increase the funds that would otherwise be available for the activities to be carried out under the grant, and in no case supplant those funds.

(c) *Limitations on allowable costs.* A grantee may not—

(1) Spend more than fifty percent of its grant award in each fiscal year for costs relating to constructing or maintaining a classroom, library, laboratory, or other instructional facility; and

(2) Use an indirect cost rate to determine allowable costs under its grant.

(Authority: 20 U.S.C. 1062, 1063b, and 1066)

§ 609.42 What are the audit and repayment requirements?

(a) (1) A grantee shall provide for the conduct of a compliance and financial audit of any funds it receives under this part by a qualified, independent organization or person in accordance with the Standards for Audit of Governmental Organizations, Programs, Activities, and Functions, 1981 revision, established by the Comptroller General of the United States. This publication is available from the Superintendent of Documents, U.S. Government Printing Office.

(2) The grantee shall have an audit conducted at least once every two years, covering the period since the previous audit, and the grantee shall submit the audit to the Secretary.

(3) If a grantee is audited under Chapter 75 of Title 31 of the United States Code, the Secretary considers that audit to satisfy the requirements of paragraph (a)(1) of this section.

(b) An institution awarded a grant under this part must submit to the Department of Education Inspector General three copies of the audit required in paragraph (a) of this section within six months after completion of the audit.

(c) Any individual or firm conducting an audit described in this section shall give the Department of Education's Inspector General access to records or other documents necessary to review the results of the audit.

(d) A grantee shall repay to the Treasury of the United States any grant funds it received that it did not expend or use to carry out the allowable activities included in its approved application within ten years following the date of the initial grant it received under this part.

(Authority: 20 U.S.C. 1063a)

§ 609.43 Under what conditions does the Secretary terminate a grant?

The Secretary terminates any grant under which funds were not expended if an institution loses—

(a) Its accredited status; or

(b) Its legal authority in the State in which it is located.

(Authority: 20 U.S.C. 1063a)

[FR Doc. 93–17124 Filed 7–19–93; 8:45 am]
BILLING CODE 4000–01–P

DEPARTMENT OF COMMERCE

Patent and Trademark Office

37 CFR Part 1

[Docket No. 920775–3145]

RIN 0651–AA44

Changes in Patent Drawing Standards

AGENCY: Patent and Trademark Office, Commerce.

ACTION: Final rule.

SUMMARY: The Patent and Trademark Office (Office) is amending the rules of practice regarding patent drawings to adopt international standards and to eliminate unnecessary requirements. The Office is amending the rules to provide clarification and adopt international standards; to delete the reference to changes by bonded draftsmen since the Office will no longer release drawings from patent applications; and to include the option of submitting black and white photographs in lieu of black ink drawings.

EFFECTIVE DATE: October 1, 1993. These rules will be applicable to all drawings and papers filed with the Office on or after the effective date.

FOR FURTHER INFORMATION CONTACT: Richard A. Bawcombe by telephone at (703) 305–8594, by mail marked to his attention addressed to the Commissioner of Patents and Trademarks, Washington, DC 20231, or by facsimile transmission to his attention at (703) 305–4372.

SUPPLEMENTARY INFORMATION: In a Notice of Proposed Rulemaking published in the **Federal Register** (57 FR 42721) on September 16, 1992, and in the Patent and Trademark Office Official Gazette (1143 Off. Gaz. Pat. Office 13) on October 6, 1992, the Office proposed to amend the rules of practice in patent drawings. Drawings acceptable for patent applications filed outside of the United States are not always acceptable in a patent application filed in the United States. Therefore, the rules relating to drawing requirements are being amended to enable the Office, when appropriate, to accept drawings that are capable of clear reproduction for the printing of any resulting patent. Drawings in compliance with the old § 1.84 will be in compliance with the new § 1.84.

An oral hearing was not conducted. However, six written comments were submitted.

Response to Comments on the Rules

The comments received in response to the notice of proposed rulemaking have been given careful consideration and several of the suggested modifications have been adopted. Another modification, since the "Notice of Proposed Rulemaking," is under § 1.84 wherein five sets of drawings were required, but the total has been decreased to three sets due to a reassessment of the need for the additional copies for Office use. The comments and responses are discussed below.

Comment: Three comments were received regarding the proposed changes within § 1.84(b). Three other comments were received regarding the proposed changes to § 1.165. All six comments suggested that the Office continue to accept mounted photographs.

Response: The Office will adopt the suggestion and continue to accept mounted photographs for utility, design, and plant patent applications. The initial reason the Office sought to change the rule was to overcome the problem of mounted photographs becoming detached and separated from the file. The apparent burden to applicants associated with the Office not accepting mounted photographs is the reason the Office will continue to permit mounted photographs provided they are permanently affixed.

Several of the commenters mentioned that they have never had problems with mounted photographs. As commentary on these remarks, it is not the person filing the drawings who would have problems with mounted photographs; it is the Office. And, indeed, the Office has, in the past, experienced problems with mounted photographs coming loose from the paper they are mounted on. When this happens, the photographs can become displaced from the file and lost. This has occurred many times, leading to frustration and wasted effort on the part of many practitioners, as well as on the part of Office personnel. If mounted photographs are to be used, they must be mounted in such a way that they cannot become loose from the bristol board to which they are mounted.

Comment: Two of the comments regarding 1.84(b) also mentioned that the proposed rules would not allow more than one figure on each sheet of drawings where photographs are being used, and sought relief from this proposed change.

Response: Since the office will continue to accept mounted photographs, the Office will also accept sheets of drawings where more than one photograph appears on the drawing sheet provided that all other drawing requirements are met.

Comment: Two of the comments suggested that the Office not require photographs to be on A4 size paper.

Response: The Office will adopt the suggestion. The Office will accept photographs on one of the four paper sizes specified in § 1.84(f), as long as all sheets are the same size.

Comment: Regarding § 1.84(f), one comment suggested that the Office permit use of an additional size of paper, i.e., 21.6 cm. by 27.9 cm. (8½ by 11 inches).

Response: The Office will adopt the suggestion. The adoption of the suggestion to add an additional paper size under § 1.84(f), results in the need for an additional margin size. Therefore, an additional paragraph is added to § 1.84(g) to state that "On 21.6 cm. by 27.9 cm. (8½ by 11 inch) drawing sheets, each sheet must include a top margin of 2.5 cm. (1 inch) and bottom and side margins of .64 cm. (¼ inch) from the edges, thereby leaving a sight precisely 16.9 by 24.3 cm. (6$^{11}/_{16}$ by 9$^{9}/_{16}$ inches)."

Comment: Regarding 1.84 (p)(3), one comment suggested liberalization for drawings which include typewritten subject matter, such as gene or protein sequences that consist predominantly of letters, sometimes with underlining and boxes around them. Other situations cited were graphs and photographs of gels, which often appear in biotechnological inventions, which include typed matter as legends.

Response: The suggestion has not been adopted because letters need to stand at the designated height to maintain legibility when reductions become necessary to accommodate the various photocomposed products.

Comment: Regarding § 1.84(w), one comment mentioned that correction fluid is not permanent and has a tendency to flake and fall from the surface it covers.

Response: Section 1.84(w) permits correction fluid to be used provided the correction fluid is durable and permanent. If correction fluid is used on drawings submitted to the Office, the applicant will be required by the Office to correct the drawings if the correction fluid becomes loose before the patent printing process is completed.

Comment: One comment suggested that § 1.152 was improper in permitting either ink drawings or photographs to be submitted with an application for a design patent, but not both, and in requiring any photographs submitted to show only the design claimed and none of the environment in which it is used. The comment argued that prohibition against using both ink drawings and photographs is inconsistent with 35 U.S.C. 112. Under that section of the statute, a design patent application must disclose the invention "in such full, clear, concise, and exact terms as enable any person skilled in the art . . . to make and use" the invention and "set forth the best mode contemplated by the inventor of carrying out his invention."

Response: Section 1.152 is consistent with 35 U.S.C. 112. The introduction of both photographs and ink drawings in a design application would result in a high probability of inconsistencies between corresponding elements on the ink drawings as compared with the photographs. However, if special circumstances warrant use of both ink drawings and photographs, applicant can file a petition under § 1.183 to permit both in a design application if such drawings do not introduce inconsistencies between the views.

Discussion of Specific Sections Changed or Added

Section 1.17(h) is amended to include a reference to § 1.84 for accepting color drawings or photographs in utility patent applications.

Section 1.19(a)(3) is amended to change the citation of § 1.84(p) to § 1.84(a)(2) in view of the amendments to § 1.84.

Section 1.71(d) is amended to change the citation of § 1.84(o) to § 1.84(o) to § 1.84(s) in view of the amendments to § 1.84.

Section 1.84 is revised as follows:

(a) *Drawings.* This paragraph is added to classify drawings into two categories, i.e., black ink and color, and deletes the limitation that the use of white pigment to cover lines is not normally acceptable. The black ink drawing requirements are amended to allow computer-generated drawings to be accepted subject to the same standards applied to all black ink drawings. Color drawing requirements are moved from § 1.84(p) to § 1.84(a). Color drawings may be acceptable upon the granting of a petition filed under this paragraph explaining why the color drawings are necessary. A petition is required because the special handling necessary for color drawings is time consuming and the Office cannot permit such a special procedure except in extenuating circumstances. Since utility patents are not printed in color, 3 sets of color drawings are necessary for proper distribution within the Office. One color

set will be attached to the Letters Patent for routing to the applicant. The remaining two color sets will be routed to (1) the patent file, and (2) the Office of Publication and Dissemination, Patent and Trademark Copy Sales, for copying purposes when a copy in color of a utility patent containing a color drawing, as provided for in § 1.19(a)(3), is requested.

(b) *Photographs.* This paragraph permits the acceptance of photographs upon granting of an applicant's petition. The Office will accept black and white and color photographs or photomicrographs (not photolithographs or other reproductions of photographs made by using screens) developed on double weight photographic paper or permanently mounted on bristol board, in lieu of ink drawings. The photographs must be of sufficient quality so that all details in the drawing are reproducible in the print patent.

(c) *Identification of drawings.* This paragraph permits an applicant to provide proper identification information on the reverse side of each sheet of drawings. The identification information allows the Office to match drawing sheets with the proper application. The identification information should include the application number, if known, or the title of the invention, inventor's name, docket number (if any), and name and telephone number of the person to call if the drawings cannot be matched to the proper patent application. The Office will not object if identifying information is not present; however, if the drawings become separated, it will be virtually impossible for the Office to match the drawings with the application. This paragraph is restructured from previous § 1.84(1) and revised to state that the preferred placement of the information is on the back side of the drawings sheets.

(d) *Graphic forms in drawings.* This paragraph is added to set standards for chemical and mathematical formulae to align Office standards for formulae, tables, and waveforms with international standards.

(e) *Type of paper.* This paragraph is a revision of previous § 1.84(a) to set forth the requirements for the type of paper to be used for drawings, including the type of paper for photographs.

(f) *Size of paper.* This paragraph clarifies Office requirements set forth in previous § 1.84(b) and permits one additional size of paper, i.e., 21.6 cm. by 27.9 cm. (8½ by 11 inches) for drawings.

(g) *Margins.* This paragraph is restructured from previous § 1.84(b) to indicate how the size of the paper changes the margin requirements. The Office will accept four sizes of paper, however, the sight (i.e., the usable surface) is the same for two of the paper sizes, i.e., 21.6 cm. by 33.1 cm. (8½ by 13 inches), and 21.6 cm. by 35.6 cm. (8½ by 14 inches). The sight is 17.0 cm. by 26.2 cm. for DIN size A4 paper. The sight is 16.9 cm. by 24.3 cm. (6 11/16 by 9 9/16 inches) for the added paper size of 21.6 cm. by 27.9 cm. (8½ by 11 inches).

(h) *Views.* This paragraph is added to reformat previous § 1.84(i) to provide a logical arrangement of the different views provided in the rules, to revise the standards for purposes of clarification, to include the standard for waveforms to show the relative timing, to provide clearer language relative to hatching shown on drawings, to set forth the standard for depicting hatching in sectional views as regularly spaced parallel oblique strokes which precludes use of cross-hatching strokes, and to include requirements pertaining to alternate positions. In addition, both Roman and Arabic numerals are acceptable to designate the section being illustrated.

(i) *Arrangement of views.* This paragraph is relocated from previous § 1.84(j) and revised to incorporate international standards. In addition, this paragraph is changed and broadened to provide for placement of words on drawings. One view is not to be superimposed within the outline of another. The changes expand the possibilities for presenting graphs to conform to standard scientific conventions, while using a format which is compatible with automated patent searching displays. See 1121 Off. Gaz. Pat. Office 54 (Dec. 25, 1990) and 1129 Off. Gaz. Pat. Office 22 (Aug. 13, 1991).

(j) *View for Official Gazette.* This paragraph is relocated from previous § 1.84(k).

(k) *Scale.* This paragraph is relocated from previous § 1.84(e) and § 1.84(i) and revised to indicate that the words "actual size" or "scale ½" on the drawings are not permitted since the meaning is lost in reduction/enlargement. The paragraph provides that elements of the same view must be in proportion to each other, unless a difference in proportion is indispensable for the clarity of the view. As a preferred alternative to a difference in proportion within one view for the purpose of achieving the necessary clarity, a supplementary view may be added giving a larger-scale illustration of an element from the initial review. When a supplementary view is included, it is recommended that the enlarged element shown in the second view be surrounded by a finely drawn or "dot-dash" circle in the first view pinpointing its location, without obscuring the view.

(l) *Character of lines, numbers, and letters.* This paragraph is located from previous § 1.84(c) and revised to indicate that lines and strokes of different thicknesses may be used in the same drawing where different thicknesses have different meanings. In addition, this paragraph is changed and broadened to allow drawings to be made by any process which will give them satisfactory reproduction characteristics.

(m) *Shading.* This paragraph is changed and broadened to expand definitions for shading and deletes the limitation that drawings transmitted to the Office should be sent flat, protected by a sheet of heavy binder's board, or rolled for transmission in a suitable mailing tube. This change provides the individual practitioner with greater discretion on how to set drawings. In addition, this paragraph is relocated from previous § 1.84(d) to separate shading requirements from hatching requirements by stating that shading may be used to indicate the surface or shape of sherical, cylindrical, and economic elements of an object, and that space lines are preferred for shading purposes. Solid black areas are not permitted, except when used to represent bar graphs or color.

(n) *Symbols.* This paragraph is relocated from previous § 1.84(g) to separate symbols requirements from legends requirements and enlarges the number of acceptable symbols. Known devices should be illustrated by symbols which have a universally-recognized meaning, and which are generally accepted in the art, provided no further detail is essential for understanding the subject matter of the claimed invention. Symbols which are not universally recognized may be used if they are not likely to be confused with existing conventional symbols and if they are readily identifiable, subject to approval by the Examiner.

(o) *Legends.* This paragraph is relocated from previous § 1.84(g) to separate legends requirements from symbols requirements and revised to integrate international standards. Where text matter is (1) deemed indispensable for understanding the drawing or (2) may be required by the Examiner, a minimum of words should be used. While such requirement by the Examiner was not contained in the "Notice of Proposed Rulemaking," it was contained in former § 1.84(g). Words should not be used to describe the figure itself, such as "this is a bar

graph." All text legends are subject to approval by the examiner.

(p) *Numbers, letters, and reference characters.* This paragraph is relocated from previous § 1.84(f) and revised to include numbers and letters in the heading formerly designated "reference characters." This section has been reformatted into five subsections and revised to integrate international standards, where possible. Although the Latin alphabet is used in the international standard, the Office takes the view that the English alphabet is more universally acceptable for letters, except where another alphabet is customarily used, such as the Greek alphabet to indicate angles, wavelengths, and mathematical formulae. In addition, the characters used must be oriented in the same direction as the view so as to avoid having to rotate the sheet. Reference characters should be so arranged to follow the profile of the object depicted. See 1121 Off. Gaz. Pat. Office 54 (Dec. 25, 1990) and 1129 Off. Gaz. Pat. Office 22 (Aug. 13, 1991).

(q) *Lead lines.* This paragraph is added to integrate international standards, to incorporate brief language which appears in previous § 1.84(f), and to change and expand the definition for lead lines. Lead lines are those lines between the reference characters and the details referred to, and they must be executed in the same way as other lines in the drawing.

(r) *Arrows.* This paragraph is relocated from previous § 1.84(g) and revised to indicate the meaning of the use of arrows, and to show that they may be used at the end of lead lines only if their meaning is clear.

(s) *Copyright or mask work notice.* This paragraph is relocated from previous § 1.84(o).

(t) *Numbering of sheets of drawings.* This paragraph is relocated from previous § 1.84(n) and changed and broadened to allow for the placement of sheet numbers within the sight of the drawing. It is preferable that the sheets be numbered with two Arabic numerals placed on either side of an oblique line, with the first number being the sheet number and the second the total number of sheets of drawings.

(u) *Numbering of views.* This paragraph is relocated from previous § 1.84(i) and, for clarity, is separately identified in this new section. Use of the abbreviation "FIG." must precede all view numbers.

(v) *Security markings.* This paragraph is relocated from previous § 1.84(l) to provide that security markings may be placed on the drawings if they are outside the sight and preferably centered in the top margin.

(w) *Corrections.* This paragraph is added to provide that any corrections made on drawings submitted to the Office must be durable and permanent. The language is revised from previous 1.84(a) which prohibited the use of white pigment to cover lines.

(x) *Holes.* This paragraph is relocated from previous § 1.84(b) to permit two holes to be punched in the top margin of the drawings with their centerlines spaced 7.0 cm. (2¾ inches) apart.

Section 1.88 is removed and reserved since the changes effective January 1, 1991, in § 1.85(b) make the regulation regarding the transfer of drawings unnecessary. Since the Office no longer releases drawings from patent applications, applicants are generally retaining the master copy of the drawings. Accordingly, applicants can easily file a copy of drawings in an application and therefore eliminate the need for the Office to transfer drawings. Any situations which present a hardship to applicants may be accommodated by the filing of a petition under § 1.182 requesting the transfer of the drawings.

Section 1.123 prescribes procedures for amending drawings. With the adoption of new rules for amending drawings effective January 1, 1989, the Office no longer requires the submission of formal drawings upon filing a patent application. See 1097 Off. Gaz. Pat. Office 36 (Dec. 13, 1988). Since corrections are the responsibility of the applicant, the original drawing(s) should be retained by the applicant for future correction, if necessary.

As a result of adoption of the new rules in 1989 relating to drawings, the Office will no longer release to applicants, bonded drafting companies or others, drawings from patent applications. Effective January 1, 1991, § 1.85(b) prohibits release of drawings from all patent applications. Accordingly, the reference to changes by bonded draftsmen is deleted from § 1.123.

Section 1.152 is revised to provide that photographs and ink drawings must not be combined in one design application. The reason for this requirement is to avoid inconsistencies between the photograph and the drawing, and further eliminate views that may distort the proportionate relationship between the corresponding elements on the drawing and the photograph. All design photographs are limited to the design for the article claimed and are not to include environmental structure. Color drawings and color photographs are not permissible in design patent applications. The submission of color photographs will be accepted for filing date purposes, in design patent applications, contrary to the requirement for black ink drawings. The Applications Processing Division has been authorized to construe the color photographs as informal drawings, rather than to hold the applications incomplete as filed. By so construing color photographs when filed as informal drawings, the Office will accept the applications without requiring applicants to file a petition to obtain the original deposit date as the filing date. During the course of prosecution, the Examiner will require properly executed formal black ink drawings or black and white photographs as a substitute for the originally filed color photographs prior to allowance of the claim. Solid black surface shading is not permitted on a design drawing, except when used to represent color contrast.

Section 1.165 is revised to provide that plant patent drawings must comply with the requirements of § 1.84. The current exception that plant patent drawings do not automatically require view numbers and reference characters is maintained. Two sets of the drawings are needed. One set will be forwarded to the Department of Agriculture and the other set will be routed to the Office of Publication and Dissemination, Patent and Trademark Copy Sales, for copying purposes.

Other Considerations

The rule change is in conformity with the requirements of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), Executive Orders 12291 and 12612, and the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*

The Acting General Counsel of the Department of Commerce has certified to the Chief Counsel for Advocacy, Small Business Administration, that these rule changes will not have a significant economic impact on a substantial number of small entities (Regulatory Flexibility Act, 5 U.S.C. 605(b)). The principal impact of these changes is to revise and reformat the drawing standards to adopt international standards, to the extent possible, and to facilitate access to sections through inclusion of pertinent subsection headings, which should be helpful to small entities.

The Office has determined that these rule changes are not a major rule under Executive Order 12291. The annual effect on the economy will be less than $100 million. There will be no major increase in costs or prices for

consumers, individuals, industries, Federal, state or local government agencies, or geographic regions because most of the changes reduce procedural burdens. There will be no adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The Office has also determined that these rule changes have no Federalism implications affecting the relationship between the National Government and the States as outlined in Executive Order 12612.

These rule changes contain a collection of information requirements subject to the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, which has previously been approved by the Office of Management and Budget under Control No. 0651–0011.

List of Subjects in 37 CFR Part 1

Administrative practice and procedure, Courts, Freedom of information, Inventions and patents, Reporting, and Record keeping requirement.

For the reasons set out in the preamble, and pursuant to the authority contained in 35 U.S.C. 6, Part 1 of Title 37 of the Code of Federal Regulations is amended as set forth below.

PART 1—RULES OF PRACTICE IN PATENT CASES

1. The authority citation for 37 CFR part 1 continues to read as follows:

Authority: 35 U.S.C. 6, unless otherwise noted.

2. Section 1.17(h) is revised to read as follows:

§ 1.17 Patent application processing fees.

* * * * *

(h) For filing a petition to the Commissioner under a section of this part listed below which refers to this paragraph.....$130.00

§ 1.47—for filing by other than all the investors or a person not the inventor.

§ 1.48—for correction of inventorship.

§ 1.84—for accepting color drawings or photographs.

§ 1.182—for decision on questions not specifically provided for.

§ 1.183—to suspend the rules.

§ 1.295—for review of refusal to publish a statutory invention registration.

§ 1.377—for review of decision refusing to accept and record payment of a maintenance fee filed prior to expiration of patent.

§ 1.378(e)—for reconsideration of decision on petition refusing to accept delayed payment of maintenance fee in expired patent.

§ 1.644(e)—for petition in an interference.

§ 1.644(f)—for request for reconsideration of a decision on petition in an interference.

§ 1.666(c)—for later filing of interference settlement agreement.

§§ 5.12, 5.13, & 5.14—for expedited handling of a foreign filing license.

§ 5.15—for changing the scope of a license.

§ 5.25—for retroactive license.

* * * * *

3. Section 1.19(a)(3) is revised to read as follows:

§ 1.19 Document supply fees.

* * * * *

(a) Uncertified copies of patents:

* * * * *

(3) Copy of a utility patent or statutory invention registration containing color drawing (see § 1.84(a)(2)).....$24.00

* * * * *

4. Section 1.71(d) is revised to read as follows:

§ 1.71 Detailed description and specification of the invention.

* * * * *

(d) A copyright or mask work notice may be placed in a design or utility patent application adjacent to copyright and mask work material contained therein. The notice may appear at any appropriate portion of the patent application disclosure. For notices in drawings, see § 1.84(s). The content of the notice must be limited to only those elements provided for by law. For example, "©1983 John Doe" (17 U.S.C. 401) and " *M* John Doe" (17 U.S.C. 909) would be properly limited and, under current statutes, legally sufficient notices of copyright and mask work, respectively. Inclusion of a copyright or mask work notice will be permitted only if the authorization language set forth in paragraph (e) of this section is included at the beginning (preferably as the first paragraph) of the specification.

* * * * *

5. Section 1.84 is revised to read as follows:

§ 1.84 Standards for drawings.

(a) *Drawings.* There are two acceptable categories for presenting drawings in utility patent applications:

(1) *Black ink.* Black and white drawings are normally required. India ink, or its equivalent that secures solid black lines, must be used for drawings, or

(2) *Color.* On rare occasions, color drawings may be necessary as the only practical medium by which to disclose the subject matter sought to be patented in a utility patent application or the subject matter of a statutory invention registration. The Patent and Trademark Office will accept color drawings in utility patent applications and statutory invention registrations only after granting a petition filed under this paragraph explaining why the color drawings are necessary. Any such petition must include the following:

(i) The appropriate fee set forth in § 1.17(h);

(ii) Three (3) sets of color drawings; and

(iii) The specification must contain the following language as the first paragraph in that portion of the specification relating to the brief description of the drawing:

"The file of this patent contains at least one drawing executed in color. Copies of this patent with color drawing(s) will be provided by the Patent and Trademark Office upon request and payment of the necessary fee.

If the language is not in the specification, a proposed amendment to insert the language must accompany the petition.

(b) *Photographs.* (1) Black and white. Photographs are not ordinarily permitted in utility and design patent applications. However, the Office will accept photographs in utility and design patent applications only after granting a petition filed under this paragraph which requests that photographs be accepted. Any such petition must include the following:

(i) The appropriate fee set forth in § 1.17(h); and

(ii) Three (3) sets of photographs. Photographs must either be developed on double weight photographic paper or be permanently mounted on bristol board. The photographs must be sufficient quality so that all details in the drawing are reproducible in the printed patent.

(2) Color. Color photographs will be accepted in utility patent applications if the conditions for accepting color drawings have been satisfied. See paragraph (a)(2) of this section.

(c) *Identification of drawings.* Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawings a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page.

(d) *Graphic forms in drawings.* Chemical or mathematical formulae,

tables, and waveforms may be submitted as drawings, and are subject to the same requirements as drawings. Each chemical or mathematical formula must be labeled as a separate figure, using brackets when necessary, to show that information is properly integrated. Each group of waveforms must be presented as a single figure, using a common vertical axis with time extending along the horizontal axis. Each individual waveform discussed in the specification must be identified with a separate letter designation adjacent to the vertical axis.

(e) *Type of paper.* Drawings submitted to the Office must be made on paper which is flexible, strong, white, smooth, non-shiny, and durable. All sheets must be free from cracks, creases, and folds. Only one side of the sheet shall be used for the drawing. Each sheet must be reasonably free from erasures and must be free from alterations, overwritings, and interlineations. Photographs must either be developed on double weight photographic paper or be permanently mounted on bristol board. See paragraph (b) of this section for other requirements for photographs.

(f) *Size of paper.* All drawing sheets in an application must be the same size. One of the shorter sides of the sheet is regarded as its top. The size of the sheets on which drawings are made must be:

(1) 21.6 cm. by 35.6 cm. (8½ by 14 inches),
(2) 21.6 cm. by 33.1 cm. (8½ by 13 inches),
(3) 21.6 cm. by 27.9 cm. (8½ by 11 inches), or
(4) 21.0 cm. by 29.7 cm. (DIN size A4).

(g) *Margins.* The sheets must not contain frames around the sight, i.e., the usable surface. The following margins are required:

(1) On 21.6 cm. by 35.6 cm. (8½ by 14 inch) drawing sheets, each sheet must include a top margin of 5.1 cm. (2 inches), and bottom and side margins of .64 cm. (¼ inch) from the edges, thereby leaving a sight no greater than 20.3 cm. by 29.8 cm. (8 by 11¾ inches).

(2) On 21.6 cm. by 33.1 cm. (8½ by 13 inch) drawing sheets, each sheet must include a top margin of 2.5 cm. (1 inch) and bottom and side margins of .64 cm. (¼ inch) from the edges, thereby leaving a sight no greater than 20.3 cm. by 29.8 cm. (8 by 11¾ inches).

(3) On 21.6 cm. by 27.9 cm. (8½ by 11 inch) drawing sheets, each sheet must include a top margin of 2.5 cm. (1 inch) and bottom and side margins of .64 cm. (¼ inch) from the edges, thereby leaving a sight no greater than 16.9 cm. by 24.3 cm. (6$^{15}/_{16}$ by 9 $^{9}/_{16}$ inches).

(4) On 21.0 cm. by 29.7 cm. (DIN size A4) drawing sheets, each sheet must include a top margin of at least 2.5 cm., a left side margin of 2.5 cm., a right side margin of 1.5 cm., and a bottom margin of 1.0 cm., thereby leaving a sight no greater than 17.0 cm. by 26.2 cm.

(h) *Views.* The drawing must contain as many views as necessary to show the invention. The views may be plan, elevation, section, or perspective views. Detail views of portions of elements, on a larger scale if necessary, may also be used. All views of the drawing must be grouped together and arranged on the sheet(s) without wasting space, preferably in an upright position, clearly separated from one another, and must not be included in the sheets containing the specifications, claims, or abstract. Views must not be connected by projection lines and must not contain center lines. Waveforms of electrical signals may be connected by dashed lines to show the relative timing of the waveforms.

(1) *Exploded views.* Exploded views, with the separated parts embraced by a bracket, to show the relationship or order of assembly of various parts are permissible. When an exploded view is shown in a figure which is on the same sheet as another figure, the exploded view should be placed in brackets.

(2) *Partial views.* When necessary, a view of a large machine or device in its entirety may be broken into partial views on a single sheet, or extended over several sheets if there is no loss in facility of understanding the views. Partial views drawn on separate sheets must always be capable of being linked edge to edge so that no partial view contains parts of another partial view. A smaller scale view should be included showing the whole formed by the partial views and indicating the positions of the parts shown. When a portion of a view is enlarged for magnification purposes, the view and the enlarged view must each be labeled as separate views.

(i) Where views on two or more sheets form, in effect, a single complete view, the views on the several sheets must be so arranged that the complete figure can be assembled without concealing any part of any of the views appearing on the various sheets.

(ii) A very long view may be divided into several parts placed one above the other on a single sheet. However, the relationship between the different parts must be clear and unambiguous.

(3) *Sectional views.* The plane upon which a sectional view is taken should be indicated on the view from which the section is cut by a broken line. The ends of the broken line should be designated by Arabic or Roman numerals corresponding to the view number of the sectional view, and should have arrows to indicate the direction of sight. Hatching must be used to indicate section portions of an object, and must be made by regularly spaced oblique parallel lines spaced sufficiently apart to enable the lines to be distinguished without difficulty. Hatching should not impede the clear reading of the reference characters and lead lines. If it is not possible to place reference characters outside the hatched area, the hatching may be broken off wherever reference characters are inserted. Hatching must be at a substantial angle to the surrounding axes or principal lines, preferably 45°. A cross section must be set out and drawn to show all of the materials as they are shown in the view from which the cross section was taken. The parts in cross section must show proper material(s) by hatching with regularly spaced parallel oblique strokes, the space between strokes being chosen on the basis of the total area to be hatched. The various parts of a cross section of the same item should be hatched in the same manner and should accurately and graphically indicate the nature of the material(s) that is illustrated in cross section. The hatching of juxtaposed different elements must be angled in a different way. In the case of large areas, hatching may be confined to an edging drawn around the entire inside of the outline of the area to be hatched. Different types of hatching should have different conventional meanings as regards the nature of a material seen in cross section.

(4) *Alternate position.* A moved position may be shown by a broken line superimposed upon a suitable view if this can be done without crowding; otherwise, a separate view must be used for this purpose.

(5) *Modified forms.* Modified forms of construction must be shown in separate views.

(i) *Arrangement of views.* One view must not be placed upon another or within the outline of another. All views on the same sheet should stand in the same direction and, if possible, stand so that they can be read with the sheet held in an upright position. If views wider than the width of the sheet are necessary for the clearest illustration of the invention, the sheet may be turned on its side so that the top of the sheet, with the appropriate top margin to be used as the heading space, is on the right-hand side. Words must appear in a horizontal, left-to-right fashion when the page is either upright or turned so that the top becomes the right side, except for graphs utilizing standard scientific convention to denote the axis

of abscissas (of X) and the axis of ordinates (of Y).

(j) *View for Official Gazette.* One of the views should be suitable for publication in the *Official Gazette* as the illustration of the invention.

(k) *Scale.* (1) The scale to which a drawing is made must be large enough to show the mechanism without crowding when the drawing is reduced in size to two-thirds in reproduction. Views of portions of the mechanism on a larger scale should be used when necessary to show details clearly. Two or more sheets may be used if one does not give sufficient room. The number of sheets should be kept to a minimum.

(2) When approved by the examiner, the scale of the drawing may be graphically represented. Indications such as "actual size" or "scale ½" on the drawings, are not permitted, since these lose their meaning with reproduction in a different format.

(3) Elements of the same view must be in proportion to each other, unless a difference in proportion is indispensable for the clarity of the view. Instead of showing elements in different proportion, a supplementary view may be added giving a larger-scale illustration of the element of the initial view. The enlarged element shown in the second view should be surrounded by a finely drawn or "dot-dash" circle in the first view indicating its location without obscuring the view.

(l) *Character of lines, numbers, and letters.* All drawings must be made by a process which will give them satisfactory reproduction characteristics. Every line, number, and letter must be durable, clean, black (except for color drawings), sufficiently dense and dark, and uniformly thick and well-defined. The weight of all lines and letters must be heavy enough to permit adequate reproduction. This requirement applies to all lines however fine, to shading, and to lines representing cut surfaces in sectional views. Lines and strokes of different thicknesses may be used in the same drawing where different thicknesses have a different meaning.

(m) *Shading.* The use of shading in views is encouraged if it aids in understanding the invention and if it does not reduce legibility. Shading is used to indicate the surface or shape of spherical, cylindrical, and conical elements of an object. Flat parts may also be lightly shaded. Such shading is preferred in the case of parts shown in perspective, but not for cross sections. See paragraph (h)(3) of this section. Spaced lines for shading are preferred. These lines must be thin, as few in number as practicable, and they must contrast with the rest of the drawings. As a substitute for shading, heavy lines on the shade side of objects can be used except where they superimpose on each other or obscure reference characters. Light should come from the upper left corner at an angle of 45°. Surface delineations should preferably be shown by proper shading. Solid black shading areas are not permitted, except when used to represent bar graphs or color.

(n) *Symbols.* Graphical drawing symbols may be used for conventional elements when appropriate. The elements for which such symbols and labeled representations are used must be adequately identified in the specification. Known devices should be illustrated by symbols which have a universally recognized conventional meaning and are generally accepted in the art. Other symbols which are not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable.

(o) *Legends.* Suitable descriptive legends may be used, or may be required by the Examiner, where necessary for understanding of the drawing, subject to approval by the Office. They should contain as few words as possible.

(p) *Numbers, letters, and reference characters.* (1) Reference characters (numerals are preferred), sheet numbers, and view numbers must be plain and legible, and must not be used in association with brackets or inverted commas, or enclosed within outlines, e.g., encircled. They must be oriented in the same direction as the view so as to avoid having to rotate the sheet. Reference characters should be arranged to follow the profile of the object depicted.

(2) The English alphabet must be used for letters, except where another alphabet is customarily used, such as the Greek alphabet to indicate angles, wavelengths, and mathematical formulas.

(3) Numbers, letters, and reference characters must measure at least .32 cm. (⅛ inch) in height. They should not be placed in the drawing so as to interfere with its comprehension. Therefore, they should not cross or mingle with the lines. They should not be placed upon hatched or shaded surfaces. When necessary, such as indicating a surface or cross section, a reference character may be underlined and a blank space may be left in the hatching or shading where the character occurs so that it appears distinct.

(4) The same part of an invention appearing in more than one view of the drawing must always be designated by the same reference character, and the same reference character must never be used to designate different parts.

(5) Reference characters not mentioned in the description shall not appear in the drawings. Reference characters mentioned in the description must appear in the drawings.

(q) *Lead lines.* Lead lines are those lines between the reference characters and the details referred to. Such lines may be straight or curved and should be as short as possible. They must originate in the immediate proximity of the reference character and extend to the feature indicated. Lead lines must not cross each other. Lead lines are required for each reference character except for those which indicate the surface or cross section on which they are placed. Such a reference character must be underlined to make it clear that a lead line has not been left out by mistake. Lead lines must be executed in the same way as lines in the drawing. See paragraph (1) of this section.

(r) *Arrows.* Arrows may be used at the ends of the lines, provided that their meaning is clear, as follows:

(1) On a lead line, a freestanding arrow to indicate the entire section towards which it points;

(2) On a lead line, an arrow touching a line to indicate the surface shown by the line looking along the direction of the arrow; or

(3) To show the direction of movement.

(s) *Copyright or Mask Work Notice.* A copyright or mask work notice may appear in the drawing, but must be placed within the sight of the drawing immediately below the figure representing the copyright or mask work material and be limited to letters having a print size of .32 cm. to .64 cm. (1/8 to 1/4 inches) high. The content of the notice must be limited to only those elements provided for by law. For example, "©1983 John Doe" (17 U.S.C. 401) and "*M* John Doe" (17 U.S.C. 909) would be properly limited and, under current statutes, legally sufficient notices of copyright and mask work, respectively. Inclusion of a copyright or mask work notice will be permitted only if the authorization language set forth in § 1.71(e) is included at the beginning (preferably as the first paragraph) of the specification.

(t) *Numbering of sheets of drawings.* The sheets of drawings should be numbered in consecutive Arabic numerals, starting with 1, within the sight as defined in paragraph (g) of this section. These numbers, if present, must be placed in the middle of the top of the sheet, but not in the margin. The

numbers can be placed on the right-hand side if the drawing extends too close to the middle of the top edge of the usable surface. The drawing sheet numbering must be clear and larger than the numbers used as reference characters to avoid confusion. The number of each sheet should be shown by two Arabic numerals placed on either side of an oblique line, with the first being the sheet number, and the second being the total number of sheets of drawings, with no other marking.

(u) *Numbering of views.* (1) The different views must be numbered in consecutive Arabic numerals, starting with 1, independent of the numbering of the sheets and, if possible, in the order in which they appear on the drawing sheet(s). Partial views intended to form one complete view, on one or several sheets, must be identified by the same number followed by a capital letter. View numbers must be preceded by the abbreviation "FIG." Where only a single view is used in an application to illustrate the claimed invention, it must not be numbered and the abbreviation "FIG." must not appear.

(2) Numbers and letters identifying the views must be simple and clear and must not be used in association with brackets, circles, or inverted commas. The view numbers must be larger than the numbers used for reference characters.

(v) *Security markings.* Authorized security markings may be placed on the drawings provided they are outside the sight, preferably centered in the top margin.

(w) *Corrections.* Any corrections on drawings submitted to the Office must be durable and permanent.

(x) *Holes.* The drawing sheets may be provided with two holes in the top margin. The holes should be equally spaced from the respective side edges, and their center lines should be spaced 7.0 cm. (2¾ inches) apart. (See § 1.152 for design drawings, § 1.165 for plant drawings, and § 1.174 for reissue drawings.)

§ 1.88 [Removed and Reserved]

6. Section 1.88 is removed and reserved.

7. Section 1.123 is revised to read as follows:

§ 1.123 Amendments to the drawing.

No change in the drawing may be made except with permission of the Office. Permissible changes in the construction shown in any drawing may be made only by the submission of a substitute drawing by applicant. A sketch in permanent ink showing proposed changes, to become part of the record, must be filed for approval by the examiner and should be a separate paper.

8. Section 1.152 is revised to read as follows:

§ 1.152 Design drawing.

The design must be represented by a drawing that complies with the requirements of § 1.84, and must contain a sufficient number of views to constitute a complete disclosure of the appearance of the article. Appropriate surface shading must be used to show the character or contour of the surfaces represented. Solid black surface shading is not permitted except when used to represent color contrast. Broken lines may be used to show visible environmental structure, but may not be used to show hidden planes and surfaces which cannot be seen through opaque materials. Alternate positions of a design component, illustrated by full and broken lines in the same view are not permitted in a design drawing. Photographs and ink drawings must not be combined in one application. Photographs submitted in lieu of ink drawings in design patent applications must comply with § 1.84(b) and must not disclose environmental structure but must be limited to the design for the article claimed. Color drawings and color photographs are not permitted in design patent applications.

9. Section 1.165 is revised to read as follows:

§ 1.165 Plant drawings.

(a) Plant patent drawings should be artistically and competently executed and must comply with the requirements of § 1.84. View numbers and reference characters need not be employed unless required by the examiner. The drawing must disclose all the distinctive characteristics of the plant capable of visual representation.

(b) The drawing may be in color and when color is a distinguishing characteristic of the new variety, the drawing must be in color. Two copies of color drawings or color photographs must be submitted.

Dated: July 14, 1993.

Michael K. Kirk,

Acting Assistant Secretary and Acting Commissioner of Patents and Trademarks.

[FR Doc. 93–17148 Filed 7–19–93; 8:45 am]

BILLING CODE 3510–16–M

National Oceanic and Atmospheric Administration

50 CFR Part 662

[Docket No. 930769–3169 ID. 061493C]

Northern Anchovy Fishery

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Preliminary determination of harvest quotas; request for comments.

SUMMARY: NMFS announces the estimated spawning biomass and preliminary determination of harvest quotas for the northern anchovy fishery in the exclusive economic zone (EEZ) south of Point Reyes, California, for the 1993–94 fishing season. The harvest quotas have been determined by application of the formulas in the Northern Anchovy Fishery Management Plan (FMP) and its implementing regulations. The optimum yield is set at 4,900 metric tons (mt), which includes a 4,900-mt nonreduction quota, plus an unspecified amount for use as live bait. There is no reduction quota for the 1993–94 fishing season. Final determination of the harvest quotas will be announced shortly after the comment period closes.

DATES: Comments must be received on or before July 29, 1993.

ADDRESSES: Comments should be addressed to Dr. Gary C. Matlock, Acting Regional Director, Southwest Region, National Marine Fisheries Service, 501 W. Ocean Boulevard; suite 4200, Long Beach, CA 90802–4213. Underlying data and other information relevant to this notice (Southwest Fisheries Science Center Administrative Report LJ–93–4), has been compiled in aggregate form and is available for public review during business hours at the office of the NMFS Southwest Regional Director.

FOR FURTHER INFORMATION CONTACT: James J. Morgan, Fisheries Operations, Southwest Region, NMFS, Long Beach, California, (310) 980–4036.

SUPPLEMENTARY INFORMATION: In consultation with the California Department of Fish and Game and the NMFS Southwest Fisheries Science Center, the Acting Director of the Southwest Region, NMFS, (Regional Director) has estimated that the 1993–1994 spawning biomass of the central subpopulation of northern anchovy, *Engraulis mordax*, is 282,000 mt, 136 percent of the 1992–1993 biomass estimate of 208,000 mt. The biomass estimate is derived from a stock synthesis model using spawning biomass estimated by the egg

production method for calendar years 1980 to 1985, an egg production index, fish spotter data, total landings and catch data, and mean January-to-February sea surface temperatures.

The Regional Director has made the following preliminary determinations for the 1993–1994 fishing season by applying the formulas in the FMP and in § 662.20 of the implementing rules.

1. The total U.S. harvest quota for northern anchovy is 4,900 mt, plus an unspecified amount for use as live bait. The total U.S. harvest quota is equivalent to 70 percent of the overall optimum yield (70 percent of 7,000 mt) available for harvest by the United States and Mexico.

2. The total U.S. harvest quota for reduction purposes is zero. No reduction quota is permitted when the spawning biomass is 300,000 mt or less.

3. The U.S. harvest allocation for nonreduction fishing (i.e., fishing or anchovy for use as dead bait and human consumption) is 4,900 mt (as set by the Federal anchovy regulations at § 662.20).

4. There is no U.S. harvest limit for the live bait fishery.

5. The domestic annual processing capacity (DAP) is 4,202 mt. The FMP states that this amount is the maximum level of reduction plus non-reduction processing during the previous 3 years.

6. The amount allocated to joint venture processing (JVP) is zero because there is no history of, nor are there applications for, joint ventures.

7. Domestic annual harvest capacity (DAH) is 4,202 mt. DAH is the sum of DAP and JVP.

8. The total allowable level of foreign fishing (TALFF) is zero mt. The TALFF in the EEZ is based on the U.S. portion of the OY (4,900 mt) minus the DAH (4,202 mt), then minus the amount of the expected harvest in the Mexican fishery zone that is in excess of the amount recognized as Mexico's share under the FMP formula. The expected 1993–1994 harvest in the Mexican fishery zone is 2,324 mt, which is the largest Mexican harvest in the past 3 years. The amount recognized as Mexico's share under the FMP formula is 30 percent of the optimum yield, which is 2,100 mt in 1993–1994. Therefore, 224 mt must be subtracted from the difference between the U.S. OY and the estimated DAH.

TALFF=4,900–4,202– (2,324–2,100)
TALFF=474 mt.

The FMP makes separate allocations to U.S. reduction and non-reduction fisheries and does not provide for a transfer between categories, while the formula for TALFF was devised as if those transfers take place to provide for a full U.S. harvest and optimum yield. Since U.S. vessel operators are interested in having a small reduction fishery even in years when the biomass has been below 300,000 mt, there is an unfulfilled domestic harvest. Establishing a TALFF for this fishery according to the formula in the FMP would violate section 201(d) of the Magnuson Act, which was intended to allow a TALFF only for that portion of the optimum yield that vessels of the U.S. would not be able or willing to harvest.

A summary of the information in which this preliminary determination is based has been provided to the Pacific Fishery Management Council (Council).

Classification

This action is authorized by 50 CFR part 662 and complies with Executive Order 12291.

List of Subjects in 50 CFR Part 662

Fisheries.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: July 14, 1993.

Samuel W. McKeen,

Program Management Officer, National Marine Fisheries Service.

[FR Doc. 93–17116 Filed 7–14–93; 4:58 pm]

BILLING CODE 3510-22-M

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50 CFR Part 671

[Docket No. 921105–3174; I.D. 070893A]

King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Interim final rule; request for comments.

SUMMARY: The Secretary of Commerce (Secretary) issues an interim final rule that supersedes State of Alaska (State) regulations that establish Norton Sound as a superexclusive registration area in the exclusive economic zone (EEZ) of the Bering Sea and Aleutian Islands Area (BSAI) by making State regulations designating any registration area of the EEZ of the BSAI as a superexclusive registration area inapplicable to vessels fishing for red king crab, blue king crab, brown king crab, Tanner crab, and/or snow crab. This action is necessary because the Secretary has determined that designation of superexclusive registration areas is inconsistent with provisions of the Fishery Management Plan for the Commercial King and Tanner Crab Fisheries in the BSAI (FMP). This action is intended to further the goals and objectives of the FMP.

DATES: Effective July 15, 1993. Comments on the interim final rule must be received by NMFS at the address below on or before August 19, 1993.

ADDRESSES: Send comments to Ronald J. Berg, Chief, Fisheries Management Division, (Attn. Lori Gravel), Alaska Region, NMFS, P.O. Box 21668, Juneau, AK 99802, or deliver to the Federal Building Annex, suite 6, 9109 Mendenhall Mall Road, Juneau, Alaska. Individual copies of the environmental assessment (EA) and the Federalism Assessment may also be obtained from this address. Comments on the EA are requested.

FOR FURTHER INFORMATION CONTACT: Ronald J. Berg, Chief, Fisheries Management Division, Alaska Region, NMFS, 907–586–7228.

SUPPLEMENTARY INFORMATION: The commercial king and Tanner crab fisheries in the EEZ of the BSAI are managed under the FMP. This FMP was prepared by the North Pacific Fishery Management Council (Council) under the Magnuson Fishery Conservation and Management Act (Magnuson Act). It is a framework FMP that, with Council and Secretarial oversight, defers management of the crab resources in the BSAI to the State. It was approved by the Secretary and implemented on June 2, 1989. At times, regulations implementing the FMP must be amended to respond to problems identified in the BSAI crab fisheries.

Although the FMP defers much of the management of the crab resources in the BSAI to the State, section 9 of the FMP provides a procedure for the interested public to appeal to the Secretary any State fisheries actions alleged to be inconsistent with the FMP, Magnuson Act, or any other applicable Federal laws. First, under the State Administrative Procedure Act, an interested person may petition the Alaska Board of Fisheries (Board) for the adoption or repeal of a regulation. A member of the public who appeals a State crab regulation must first petition the Board through this procedure and must receive an adverse ruling before the Secretary will accept an appeal under section 9 of the FMP. If the Secretary accepts an appeal for review, he may request that the appeal first be reviewed by the Crab Interim Action Committee (CIAC).

The CIAC was established by the Council under section 2 of the FMP to provide oversight and Council review of State regulatory actions that are promulgated by the Board. The CIAC has no authority to grant or reject an appeal. A function of the CIAC is to

comment in writing on appeals to assist the Secretary with his review of new State crab regulations to determine if they are consistent with the FMP, the Magnuson Act, and other Federal laws.

On February 8, 1993, the Board established Norton Sound in the BSAI as a superexclusive registration area for purposes of managing the Norton Sound red king crab fishery. The Alaska Crab Coalition (ACC), which represents crab fishermen who reside mostly in the States of Washington and Oregon, appealed the Board's action under procedures contained in section 9 of the FMP. ACC's appeal is based on its contention that superexclusive areas are not authorized by the FMP, the Magnuson Act, and other Federal and State laws.

The CIAC met June 18, 1993, in Juneau, Alaska. The purpose of the meeting was to review ACC's appeal of the Board's February 8, 1993, action. In reviewing the ACC appeal, the CIAC considered whether superexclusive registration areas are authorized by the FMP. The CIAC heard testimony from NOAA General Counsel, Alaska, the Alaska Attorney General's Office, the Alaska Department of Fish and Game, and the Chairman of the Board. The three members of the CIAC have each submitted written comments to the Secretary.

The Board intended that Norton Sound be managed as a superexclusive area. In this context, if a vessel is registered to fish in a superexclusive area, that vessel cannot fish in any other registration area for the remainder of a registration year. Registration areas are listed as a Category 2 measure among 3 categories of management measures in the FMP. Category 2 measures are frameworked, which means that they can be changed by the State following criteria specified in the FMP. Category 1 measures are fixed in the FMP and can only be changed by an FMP amendment. Category 3 measures can be changed at the discretion of the State, but only after consultation with the Council. "Other" management measures in Category 3 are those not described in the FMP and that may only be implemented if they are consistent with the FMP, the Magnuson Act, and other applicable Federal laws.

Chapter 8.2.8 of the FMP discusses registration areas, as follows:

> King crab registration areas within the management unit are designated as either exclusive or nonexclusive. Vessels can register for any one exclusive area and are not restricted in their choice, but cannot fish in any other exclusive area during the registration year. They can, however, fish any or all other nonexclusive areas.

Chapter 8.2.8 also provides that "the specification of registration area[s], both exclusive and nonexclusive, may be important to the attainment of the economic and social objectives of the FMP," and then specifies six factors that the State must consider when designating an area as "exclusive."

This FMP text at chapter 8.2.8 provides for only two types of registration areas—exclusive and nonexclusive. The FMP describes the term "exclusive" in a manner that plainly does not include the more restrictive term "superexclusive;" that is, a vessel registered for an exclusive area may be used to take crab in any or all nonexclusive areas, while a vessel that is registered for a superexclusive area may not be used to take crab in any other registration area.

The Secretary has reviewed the information provided by the CIAC, including reports prepared by individual CIAC members as well as findings by the Board and other background information. The Secretary concludes that: (1) The designation of registration areas is a management measure comprehensively described in chapter 8.2.8 of the FMP; and (2) the designation of superexclusive registration areas is inconsistent with the FMP. Accordingly, the Secretary by regulation supersedes State regulations designating superexclusive registration areas in the BSAI EEZ by making such regulations inapplicable to vessels fishing for red king crab, blue king crab, brown king crab, Tanner crab, and/or snow crab.

Classification

The Assistant Administrator for Fisheries, NOAA (Assistant Administrator), determined that this rule is necessary for the conservation and management of crab fisheries in the EEZ of the BSAI management unit, and that it is consistent with the Magnuson Act and other applicable laws.

The Assistant Administrator also finds that reasons summarized above justifying promulgation of this rule make it contrary to the public interest to provide notice and opportunity for prior comment or to delay for 30 days its effective date under 5 U.S.C. 553 (b) and (d) of the Administrative Procedure Act. The red king crab fishery in Norton Sound has commenced. This rule must be made effective immediately to remove the economic burden that the State's regulations have imposed on persons who intend to fish for king crab from their vessels in Norton Sound and in other registration areas in the management unit. Rather than issue a final rule, this rule is being issued as interim final rule to allow the public to comment. Comments on the interim final rule will be accepted for a period of 30 days after the effective date.

This interim final rule is exempt from the normal review procedures of E.O. 12291. This rule is being reported to the Director of the Office of Management and Budget with an explanation of why it is not possible to follow the regular procedures of that Order.

Because neither the Administrative Procedure Act nor any other statute requires general notice of proposed rulemaking for this action, the Regulatory Flexibility Act does not require preparation of a regulatory flexibility analysis.

NMFS has determined that this interim final rule will be implemented in a manner that is consistent to the maximum extent practicable with the approved coastal management program of the State of Alaska. This determination has been submitted for review by the responsible State agency under section 307 of the Coastal Zone Management Act.

The Alaska Region, NMFS, prepared an EA for this action. The Assistant Administrator found that no significant impact on the human environment would result from implementation of this rule. A copy of the EA may be obtained (see **ADDRESSES**).

NMFS has determined that the management measures implemented under the interim final rule will not adversely affect endangered or threatened species. Therefore, further consultation pursuant to section 7 of the Endangered Species Act is not required for the implementation of this rule.

This rule does not contain a collection-of-information requirement for purposes of the Paperwork Reduction Act.

The Federalism Implementation Officer of the Department of Commerce certified that this action is consistent with the federalism principles, criteria, and requirements set forth in the sections 2 through 5 of E.O. 12612. A copy of the Federalism Assessment prepared for this action may be obtained upon request (see **ADDRESSES**).

List of Subjects in 50 CFR Part 671

Fisheries, Reporting and recordkeeping requirements.

Dated: July 14, 1993.

Gary Matlock,

Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR chapter VI is amended by adding part 671 to read as follows:

PART 671—KING AND TANNER CRAB FISHERIES OF THE BERING SEA AND ALEUTIAN ISLANDS

Subpart A—General Provisions

Sec.
671.1 Purpose and scope.
671.2 Definitions.

Subpart B—Management Measures

671.20 Superexclusive registration areas.

Authority: 16 U.S.C. 1801 *et seq.*

Subpart A—General Provisions

§ 671.1 Purpose and scope.

This part contains Federal regulations necessary to carry out the Fishery Management Plan for the Commercial King and Tanner Crab Fisheries in the Bering Sea and Aleutian Islands Area (FMP), including regulations superseding State of Alaska regulations applicable to the commercial king and Tanner crab fisheries in the Bering Sea and Aleutian Islands area in the EEZ that are determined to be inconsistent with the FMP.

§ 671.2 Definitions.

In addition to the definitions in the Magnuson Act and in § 620.2 of this chapter, the terms used in this part have the following meanings:

Bering Sea and Aleutian Islands Area means those waters of the exclusive economic zone off the west coast of Alaska lying south of Point Hope (68°21′ N. latitude), and extending south of the Aleutian Islands for 200 nautical miles west of Scotch Cap Light (164°44′36″ W. longitude).

Superexclusive registration area means any State of Alaska designated registration area within the Bering Sea and Aleutian Islands Area where if a vessel is registered to fish for crab that vessel is prohibited from fishing for crab in any other registration area during that registration year.

Subpart B—Management Measures

§ 671.20 Superexclusive registration

State of Alaska regulations that designate any registration area of the Bering Sea and Aleutian Islands area as a superexclusive registration area do not apply to vessels fishing for red king crab *Paralithodes camtschatica*, blue king crab *P. platypus*, brown (or golden) king crab *Lithodes aequispina*, Tanner crab *Chionoecetes bairdi*, and/or snow crab *C. opilio*.

[FR Doc. 93–17149 Filed 7–15–93; 2:44 pm]
BILLING CODE 3510-22-M

Proposed Rules

Federal Register
Vol. 58, No. 137
Tuesday, July 20, 1993

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF THE TREASURY

Office of Thrift Supervision

12 CFR Part 563

[No. 93–88]

RIN 1550–AA65

Special Mention Assets

AGENCY: Office of Thrift Supervision, Treasury.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Office of Thrift Supervision (OTS), is proposing to replace its regulation governing Special Mention assets with guidance on the classification of these assets. This will bring the OTS's policy on Special Mention assets into conformity with the guidance of the other Federal banking regulatory agencies.

DATES: Comments on this proposed rule must be received on or before August 19, 1993.

ADDRESSES: Comments should be sent to: Director, Information Services Division, Public Affairs, Office of Thrift Supervision, 1700 G Street NW., Washington DC 20552. Attention Docket No. 93–88. These submissions may be hand delivered to 1700 G Street NW., from 9 a.m. to 5 p.m. on business days; they may be sent by facsimile transmission to FAX number (202) 906–7755. Submissions must be received by 5 p.m. on the day they are due in order to be considered by the OTS. Late-filed, misaddressed, or misidentified submissions will not be considered in this rulemaking. Comments will be available for public inspection at 1776 G Street NW., Level 1C.

FOR FURTHER INFORMATION CONTACT: Robert Fishman, Program Manager for Credit Risk, Policy, (202) 906–5672; Catherine A. Shepard, Senior Attorney, Regulations and Legislation Division, Chief Counsel's Office, (202) 906–7275, Office of Thrift Supervision, 1700 G Street, NW., Washington DC 20552.

SUPPLEMENTARY INFORMATION:

I. Background

The OTS's asset classification regulation, 12 CFR 563.160, directs savings associations to classify, as appropriate, troubled assets (or portions thereof) as "substandard," "doubtful" or "loss."

On January 6, 1988, the former Federal Home Loan Bank Board amended the asset classification regulation to add a "Special Mention" category, though Special Mention assets are not considered adversely classified.[1] The Special Mention designation is intended to identify assets not yet warranting an adverse classification but that nonetheless possess credit deficiencies or potential weaknesses deserving close attention. Special Mention assets are those assets having a potential weakness or financial risk that, if not corrected, could weaken the asset and increase the risk of financial loss in the future.

The OTS's troubled asset classification scheme, unlike those of the other Federal banking regulatory agencies, has been codified in regulation. The other Federal banking agencies have issued guidance to their financial institutions with respect to Special Mention assets and adversely classified assets.

The Interagency Policy Statement on Credit Availability, issued by the four Federal banking and thrift regulatory agencies on March 10, 1993, states that the agencies will issue new guidance to clarify the supervisory treatment of Special Mention assets. In particular, the Policy Statement on Credit Availability indicated that the agencies will clarify that Special Mention assets are not grouped with adversely classified assets.

The OTS is taking this opportunity to more closely align its treatment of Special Mention assets under its classification of assets regulation with the policies of the other Federal banking regulatory agencies. Accordingly, the OTS is today proposing to remove the specific reference to Special Mention assets from that regulation, 12 CFR 563.160(e). The agency will instead issue guidance on this topic that will be made available to all savings associations.

[1] 53 FR 352 (Jan. 6, 1988).

The OTS guidance will adopt the definition of Special Mention assets contained in the June 10, 1993 Interagency Policy Statement on the Supervisory Definition of Special Mention Assets. That Policy Statement contains a definition of Special Mention assets that will be common to all of the Federal banking agencies. Under that definition, a Special Mention asset:

> Has potential weaknesses that deserve management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the asset or in the institution's credit position at some future date. Special Mention assets are not adversely classified and do not expose an institution to sufficient risk to currently warrant adverse classification.

The OTS will also continue to require that savings associations self-monitor and self-designate their Special Mention assets.

The agency is also considering removing the specific descriptions of assets classified as "substandard," "doubtful" and "loss" from the regulatory text at 12 CFR 563.160(b) and providing such descriptions in guidance. This will allow the OTS to conform its policies in this area with those of the other Federal banking agencies more quickly as these issues evolve.

II. Comment Solicitation

Comments are sought on all aspects of the proposed regulation including comments suggesting alternatives to the OTS's removal of Special Mention assets from 12 CFR 563.160, and comments on the elimination of the three types of adversely classified assets from the rule. A 30-day comment period is provided.

Regulatory Flexibility Act

Pursuant to section 605(b) of the Regulatory Flexibility Act (Pub. L. 96–354, 5 U.S.C. 601), it is certified that this regulation will not have a significant economic impact on a substantial number of small savings associations, small service corporations or other small entities. This proposed regulation simply deletes Special Mention assets from the classification of troubled assets as set forth in 12 CFR 563.160. The OTS proposes to substitute Special Mention guidance for the regulation to bring its asset classification policies into

conformity with those of the other Federal banking regulatory agencies.

Executive Order 12291

It has been determined that this document is not a "major rule" and therefore does not require a regulatory impact analysis. This regulation simply deletes special mention assets from the classification of troubled assets as set forth in 12 CFR 563.160. The OTS proposes to substitute Special Mention guidance for the regulation to bring its asset classification policies into conformity with those of the other Federal banking regulatory agencies.

List of Subjects in 12 CFR Part 563

Accounting, Advertising, Crime, Currency, Flood insurance, Investments, Reporting and recordkeeping requirements, Savings associations, Securities, Surety bonds.

Accordingly, the Office of Thrift Supervision hereby proposes to amend part 563, chapter V, title 12 of the Code of Federal Regulations as set forth below.

SUBCHAPTER D—REGULATIONS APPLICABLE TO ALL SAVINGS ASSOCIATIONS

PART 563—OPERATIONS

1. The authority citation for part 563 continues to read as follows:

Authority: 12 U.S.C. 1462, 1462a, 1463, 1464, 1467a, 1468, 1817, 1828, 3806; 42 U.S.C. 4106; Pub. L. 102–242, sec. 306, 105 Stat. 2236, 2355 (1991).

§ 563.160 [Amended]

2. Section 563.160 is amended by removing and reserving paragraph (e).

Dated: June 3, 1993.

By the Office of Thrift Supervision.

Jonathan L. Fiechter,

Acting Director.

[FR Doc. 93–17174 Filed 7–19–93; 8:45 am]

BILLING CODE 6720–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 93–CE–38–AD]

Airworthiness Directives: Beech Aircraft Corp. 200 and 300 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes to adopt a new airworthiness directive (AD) that would apply to certain Beech Aircraft Corporation (Beech) 200 and 300 series airplanes that do not have the fuselage stringers, Numbers (Nos.) 5 through 11, modified on both the left and right hand sides in accordance with certain service information. The proposed action would require repetitively inspecting the fuselage stringers for cracks, and repairing any cracked stringers. Numerous reports of cracked fuselage stringers in the area of the rear pressure bulkhead on the affected airplanes prompted the proposed action. The actions specified by the proposed AD are intended to prevent structural damage to the fuselage caused by cracked stringers in the rear pressure bulkhead area.

DATES: Comments must be received on or before September 30, 1993.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 93–CE–38–AD, room 1558, 601 E. 12th Street, Kansas City, Missouri 64106. Comments may be inspected at this location between 8 a.m. and 4 p.m., Monday through Friday, holidays excepted.

Service information that applies to the proposed AD may be obtained from the Beech Aircraft Corporation, P.O. Box 85, Wichita, Kansas 67201–0085. This information also may be examined at the Rules Docket at the address above. Information relating to Supplemental Type Certificate (STC) SA63CH may be obtained from Priester Aviation Service, Pal-Waukee Municipal Airport, Wheeling, Illinois 60090.

FOR FURTHER INFORMATION CONTACT: Mr. Don Campbell, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946–4128; Facsimile (316) 946–4407.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 93–CE–38–AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 93–CE–38–AD, room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Discussion

The FAA has received several reports of cracks in fuselage stringers Nos. 5 through 11 at the rear pressure bulkhead on certain Beech 200 and 300 series airplanes. This condition, if not detected and corrected, could lead to structural damage to the fuselage.

Beech has issued Service Bulletin 2472, dated June 1993, which specifies procedures for inspecting and repairing fuselage stringers Nos. 5 through 11. Chapter 51–10 or 53–10, as applicable, in the maintenance manual also specifies instructions for installing an external doubler, which is considered a repair for these fuselage stringers. In addition, Priester Aviation Service STC SA63CH details a repair for these fuselage stringers.

After examining the circumstances and reviewing all available information related to the incidents described above, the FAA has determined that AD action should be taken to prevent structural damage to the fuselage caused by cracked stringers in the rear pressure bulkhead area.

Since an unsafe condition has been identified that is likely to exist or develop in other Beech 200 and 300 series airplanes that do not have fuselage stringers Nos. 5 through 11 modified in accordance with one of the service documents previously referenced, the proposed AD would require repetitively inspecting these fuselage stringers for cracks, and repairing any cracks. The proposed inspection would be accomplished in

accordance with the Accomplishment Instructions section of Beech SB No. 2472, dated June 1993.

The FAA estimates that 2,264 airplanes in the U.S. registry would be affected by the proposed AD, that it would take approximately 1 workhour per airplane to accomplish the proposed inspection, and that the average labor rate is approximately $55 an hour. Based on these figures, the total cost impact of the proposed inspection on U.S. operators is estimated to be $124,520. These figures take into account that none of the affected airplane operators have incorporated one of the inspection-terminating modifications.

The regulations proposed herein would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action: (1) Is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action has been placed in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption "ADDRESSES".

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 14 CFR part 39 of the Federal Aviation Regulations as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. App. 1354(a), 1421 and 1423; 49 U.S.C. 106(g); and 14 CFR 11.89.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new AD:

Beech Aircraft Corporation: Docket No. 93–CE–38–AD.

Applicability: The model and serial number airplanes presented below, certificated in any category, that do not have all the fuselage stringers Nos. 5 through 11 modified on both the right and left hand sides in accordance with either: (1) Beech Service Bulletin (SB) 2472, dated June 1993; (2) Chapter 51–10 or 53–10, as applicable, of the maintenance manual; or (3) the instructions to Priester Aviation Service Supplemental Type Certificate (STC) SA63CH:

Models	Serial Nos.
200, A200, B200, and A100–1.	BB–2 through BB–1462, BC–1 through BC–75, and BD–1 through BD–30.
200C, A200C, and B200C.	BL–1 through BL–138, BJ–1 through BJ–66, BU–1 through BU–12, and BV–1 through BV–12.
200CT, A200CT, B200CT.	BN–1 through BN–4, BP–1 through BP–71, FC–1, FC–2, FC–3, FG–1, FG–2, and GR–1 through GR–13.
200T and B200T	BT–1 through BT–38.
300	FA–1 through FA–228.
B300	FL–1 through FL–103.
B300C	FM–1 through FM–8 and FN–1.

Compliance: Required upon the accumulation of 3,000 hours time-in-service (TIS) or within the next 100 hours TIS after the effective date of this AD, whichever occurs later, unless already accomplished, and thereafter as indicated.

To prevent structural damage to the fuselage caused by cracked stringers in the rear pressure bulkhead area, accomplish the following:

(a) Inspect fuselage stringers Numbers (Nos.) 5 through 11 on both the left and right hand sides for cracks in accordance with the Accomplishment Instructions section of Beech SB No. 2472, dated June 1993.

(1) If no cracks are found, reinspect at intervals that correspond with the following:

Stringers modified in accordance with one of the three modifications referenced in the applicability section of this AD	Inspection interval
No Stringers Modified	600 hours TIS.
Nos. 8, 9, and 10	1,200 hours TIS.
Nos. 5 through 11	AD no longer applies.

(2) If cracks are found, prior to further flight, modify the cracked fuselage stringer in accordance with the instructions in one of the three modifications specified in the Applicability section of this AD, and reinspect at intervals presented in the chart in paragraph (a)(1) of this AD.

(b) The modifications specified in the Applicability section of this AD may be accomplished at any time as terminating action for the inspection requirement of this AD provided that all fuselage stringers Nos. 5 through 11 are modified.

(c) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, room 100, Wichita, Kansas 67209. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and send it to the Manager, Wichita Aircraft Certification Office.

Note: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Wichita Aircraft Certification Office.

(e) Service information that applies to this AD may be obtained from the Beech Aircraft Corporation, P.O. Box 85, Wichita, Kansas 67201–0085. This information may also be inspected at the FAA, Central Region, Office of the Assistant Chief Counsel, room 1558, 601 E. 12th Street, Kansas City, Missouri. Information relating to STC SA63CH may be obtained from Priester Aviation Service, Palwaukee Municipal Airport, Wheeling, Illinois 60090.

Issued in Kansas City, Missouri, on July 14, 1993.

Dwight A. Young,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 93–17126 Filed 7–19–93; 8:45 am]

BILLING CODE 4910–13–U

14 CFR Part 39

[Docket No. 93–CE–34–AD]

Airworthiness Directives: British Aerospace, Regional Aircraft Limited, Jetstream Model 3201 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes to adopt a new airworthiness directive (AD) that would apply to certain British Aerospace (BAe), Regional Aircraft Limited, Jetstream Model 3201 airplanes. The proposed action would require inspecting and modifying the spigot housing plate at the wing/fuselage forward attachment sliding joint. A fatigue test that revealed a crack to the spigot housing plate on one of the affected airplanes prompted the proposed action. The actions specified

by the proposed AD are intended to prevent structural failure of the wing/fuselage area caused by a cracked spigot housing plate.

DATES: Comments must be received on or before September 17, 1993.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 93–CE–34–AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106. Comments may be inspected at this location between 8 a.m. and 4 p.m., Monday through Friday, holidays excepted.

Service information that applies to the proposed AD may be obtained from Jetstream Aircraft, Limited (JAL), Manager Product Support, Prestwick Airport, Ayrshire, KA9 2RW Scotland; Telephone (44–292) 79888; Facsimile (44–292) 79703; or Jetstream Aircraft, Inc., Librarian, P.O. Box 16029, Dulles International Airport, Washington, DC, 20041–6029; Telephone (703) 406–1161; Facsimile (703) 406–1469. This information also may be examined at the Rules Docket at the address above.

FOR FURTHER INFORMATION CONTACT: Mr. Raymond A. Stoer, Program Officer, Brussels Aircraft Certification Office, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, B–1000 Brussels, Belgium; Telephone (322) 513.38.30 ext. 2710; Facsimile (322) 230.68.99; or Mr. John P. Dow, Sr., Project Officer, Small Airplane Directorate, Airplane Certification Service, FAA, 1201 Walnut, suite 900, Kansas City, Missouri 64106; Telephone (816) 426–6932; Facsimile (816) 426–2169.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 93–CE–34–AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 93–CE–34–AD, room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Discussion

The Civil Aviation Authority (CAA), which is the airworthiness authority for the United Kingdom, recently notified the FAA that an unsafe condition may exist on certain BAe, Regional Aircraft Limited, Jetstream Model 3201 airplanes. The CAA reports that fatigue testing on one of the affected airplanes revealed a crack in the spigot housing plate at the wing/fuselage forward attachment joint. This condition, if not detected and corrected, could result in structural failure of the wing/fuselage area.

JAL has issued Service Bulletin (SB) 57–JA 921144, dated March 4, 1993, which specifies procedures for inspecting and modifying the spigot housing plate. The CAA classified this service bulletin as mandatory in order to assure the continued airworthiness of these airplanes in the United Kingdom.

This airplane model is manufactured in the United Kingdom and is type certificated for operation in the United States under the provisions of § 21.29 of the Federal Aviation Regulations and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the CAA has kept the FAA informed of the situation described above. The FAA has examined the findings of the CAA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Since an unsafe condition has been identified that is likely to exist or develop in other BAe, Regional Aircraft Limited, Jetstream Model 3201 airplanes of the same type design, the proposed AD would require inspecting the spigot housing plate for cracks at the wing/fuselage forward attachment sliding joint, immediately modifying if found cracked, and eventually modifying if not found cracked. The proposed actions would be accomplished in accordance with JAL SB 57–JA 921144, dated March 4, 1993.

The FAA estimates that 120 airplanes in the U.S. registry would be affected by the proposed AD, that it would take approximately 40 workhours per airplane to accomplish the proposed action, and that the average labor rate is approximately $55 an hour. Parts will be provided by the manufacturer at no cost to the owner/operator. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be $264,000. These figures take into account that none of the affected airplanes have the proposed modification incorporated.

The regulations proposed herein would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action has been placed in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption "**ADDRESSES**".

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 14 CFR part 39 of the Federal Aviation Regulations as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. App. 1354(a), 1421 and 1423; 49 U.S.C. 106(g); and 14 CFR 11.89.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new AD:

British Aerospace, Regional Aircraft Limited: Docket No. 93–CE–34–AD.

Applicability: Jetstream Model 3201 airplanes, serial numbers 790 through 960, certificated in any category.

Compliance: Required as indicated, unless already accomplished.

To prevent structural failure of the wing/fuselage area caused by a cracked spigot housing plate, accomplish the following:

(a) Upon the accumulation of 7,200 hours time-in-service (TIS) or within the next 500 hours TIS after the effective date of this AD, whichever occurs later, inspect the spigot housing plate at the wing/fuselage forward attachment sliding joint for cracks in accordance with Part 1 of the Accomplishment Instructions section of Jetstream Aircraft, Limited, (JAL) Service Bulletin (SB) 57–JA 921144, dated March 4, 1993.

(1) If cracks are found, prior to further flight, modify the spigot and spigot housing plate in accordance with either Part 2 or Part 3, as applicable, of the Accomplishment Instructions section of JAL SB 57–JA 921144, dated March 4, 1993.

(2) If no cracks are found, within the next 3,000 hours after the inspection, modify the spigot and spigot housing plate in accordance with either Part 2 or Part 3, as applicable, of the Accomplishment Instructions section of JAL SB 57–JA 921144, dated March 4, 1993.

(b) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplane to a location where the requirements of this AD can be accomplished.

(c) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Brussels Aircraft Certification Office, Europe, Africa, Middle East office, FAA, c/o American Embassy, 1000 Brussels, Belgium. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Brussels Aircraft Certification Office.

Note: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Brussels Aircraft Certification Office.

(d) All persons affected by this directive may obtain copies of the document referred to herein upon request to Jetstream Aircraft, Limited, Manager Product Support, Prestwick Airport, Ayrshire, KA9 2RW Scotland; or Jetstream Aircraft, Inc., Librarian, P.O. Box 16029, Dulles International Airport, Washington, DC, 20041–6029. This document may also be examined at the FAA, Central Region, Office of the Assistant Chief Counsel, room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Issued in Kansas City, Missouri, on July 14, 1993.

Dwight A. Young,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 93–17188 Filed 7–19–93; 8:45 am]

BILLING CODE 4910–13–U

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14 CFR Part 71

[Airspace Docket No. 93–ASW–27]

Proposed Establishment of Class D Airspace: Alice, TX; Corpus Christi, TX

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes to establish Class D airspace at Naval Auxiliary Landing Field (NALF) Orange Grove, Alice, TX; NALF Waldron, Corpus Christi, TX; and Naval Outlying Landing Field (NOLF) Cabaniss, Corpus Christi, TX. The United States Navy operates a control tower at each of these locations with an associated airport traffic area (ATA). Airspace Reclassification, which becomes effective September 16, 1993, will discontinue the use of the term "airport traffic area" and eliminate those ATA's not already designated to become Class D airspace. As a result, the requirement for two-way radio communication with the control towers at NALF Orange Grove, NALF Waldron, and NOLF Cabaniss, would lapse. The intended effect of this proposal is to provide adequate Class D airspace to perpetuate the existing two-way radio communication requirement at these locations.

DATES: Comments must be received on or before August 20, 1993.

ADDRESSES: Send comments on the proposal in triplicate to Manager, System Management Branch, Air Traffic Division, Southwest Region, Docket No. 93–ASW–27, Department of Transportation, FAA, Fort Worth, TX 76 193–0530.

The official docket may be examined in the office of the Assistant Chief Counsel, Southwest Region, FAA, 4400 Blue Mound Road, Fort Worth, TX, between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. An informal docket may also be examined during normal business hours at the System Management Branch, Southwest Region, FAA, 4400 Blue Mound Road, Fort Worth, TX.

FOR FURTHER INFORMATION CONTACT: Alvin E. DeVane, System Management Branch, Department of Transportation, FAA, Fort Worth, TX 76 193–0530; telephone: 817–624–5535.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views or arguments as they may desire Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify the airspace docket number and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit, with those comments, a self-addressed, stamped, postcard containing the following statement: "Comments to Airspace Docket No. 93–ASW–27." The postcard will be date and time stamped and returned to the commenter. All communications received on or before the specified closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available for examination in the System Management Branch, Air Traffic Division, at 4400 Blue Mound Road, Fort Worth, TX, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket.

Availability of NPRM's

Any person may obtain a copy of this notice of proposed rulemaking (NPRM) by submitting a request to the Manager, System Management Branch, Department of Transportation, FAA, Fort Worth, TX 76 193–0530. Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRM's should also request a copy of Advisory Circular No. 11–2A that describes the application procedure.

The Proposal

The FAA is considering an amendment to part 71 of the Federal Aviation Regulations (14 CFR part 71) to establish Class D airspace located at NALF Orange Grove, Alice, TX; NALF Waldron, Corpus Christi, TX; and NOLF Cabaniss, Corpus Christi, TX. The United States Navy operates a control

tower at each of these locations with an associated ATA. Airspace Reclassification, which becomes effective September 16, 1993, will discontinue the use of the term "airport traffic area" and eliminate those ATA's. As a result, the requirement for two-way radio communication with the control towers at NALF Orange Grove, NALF Waldron, and NOLF Cabaniss, would lapse. The intended effect of this proposal is to provide adequate Class D airspace to perpetuate the existing two-way radio communication requirement at these locations. The coordinates for this airspace docket are based on North American Datum 83. Class D airspace designations are published in paragraph 5000 of FAA Order 7400.9A dated June 17, 1993, and effective September 16, 1993, which is incorporated by reference in 14 CFR 71.1. The Class D airspace designation listed in this document would be published subsequently in the Order.

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore—(1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Aviation safety, Incorporation by reference, Navigation (air).

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR part 71 as follows:

PART 71—[AMENDED]

1. The authority citation for 14 CFR Part 71 continues to read as follows:

Authority: 49 U.S.C. ap. 1348(a), 1354(a), 1510; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389; 49 U.S.C. 106(g); 14 CFR 11.69.

§ 71.1 [Amended]

2. The incorporation by reference in 14 CFR 71.1 of the Federal Aviation Administration Order 7400.9A, Airspace Designations and Reporting Points, dated June 17, 1993 and effective September 16, 1993, is amended as follows:

Para. 5000 General

* * * * *

ASW TX CZ Alice, TX [New]

Orange Grove NALF, TX (lat. 25°54'04"N., long. 98°03'06"W.)
Navy Orange Grove TACAN (lat. 27°53'43"N., long. 98°02'33"W.)

That airspace extending upward from the surface to and including 2,800 feet MSL within a 4.7-mile radius of NALF Orange Grove and within 1.0 mile each side of the 129° radial of the Orange Grove TACAN extending from the 4.7-mile radius to 5.2 miles southeast of the airport and within 1.0 mile each side of the 320° radial of the Orange Grove TACAN extending from the 4.7-mile radius to 5.1 miles northwest of the airport.

* * * * *

ASW TX CZ Corpus Christi, TX [New]

Waldron NALF, TX (lat. 27°38'01"N., long. 97°18'47"W.)

That airspace extending upward from the surface to and including 2,000 feet MSL within a 3.5-mile radius of Waldron NALF, excluding that airspace within the Corpus Christi International Airport, TX, Class C airspace and excluding that airspace within the Corpus Christi NAS, TX, Class D airspace. This Class D airspace is effective during the specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory.

* * * * *

ASW TX CZ Corpus Christi, TX [New]

Cabaniss NOLF, TX (lat. 27°42'01"N., long. 97°26'04"W.)

That airspace extending upward from the surface to but not including 1,200 feet MSL within a 4.4-mile radius of Cabaniss NOLF, excluding that airspace within the Corpus Christi International Airport, TX, Class C airspace, and excluding that airspace within the NALF Waldron Class D airspace, and excluding that airspace west of a line between lat. 27°38'15"N., long. 97°28'40"W. and lat. 27°41'30"N., long. 97°28'40"W. This class D airspace is effective during the specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory.

* * * * *

Issued in Forth Worth, TX on June 24, 1993.

Larry L. Craig,

Manager, Air Traffic Division Southwest Region.

[FR Doc. 93–17166 Filed 7–19–93; 8:45 am]

BILLING CODE 4910-13-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 82

[FRL–4681–4]

Protection of Stratospheric Ozone; Recordkeeping and Reporting Requirements

AGENCY: Environmental Protection Agency.

ACTION: Request for Comments on Recordkeeping and Reporting Requirements.

SUMMARY: Through this document, EPA is requesting public comment on the recordkeeping and periodic reporting requirements on the ozone-depleting substances proposed to be added to the list of class I substances under section 602 of the Clean Air Act as amended. This document also seeks comment on recordkeeping and reporting requirements regarding the recycling, transshipment and destruction of class I and class II substances proposed on March 18, 1993, Protection of Stratospheric Ozone.

DATES: Comments must be submitted on or before August 19, 1993.

ADDRESSES: Comments on this document of information collection requirements should be submitted to the attention of Sandy Farmer and Chris Wolz at the addresses indicated below.

FOR FURTHER INFORMATION CONTACT: Peter Voigt, U.S. EPA, Stratospheric Protection Division, Office of Atmospheric Programs, Office of Air and Radiation, 6205J 401 M Street SW., Washington, DC, 20460, (202) 2133–9185.

SUPPLEMENTARY INFORMATION:

Background:

Notice of proposed rulemaking to accelerate the phaseout of a number of ozone-depleting substances, and to implement amendments, adjustments and decisions of the Montreal protocol was published in the **Federal Register** on March 18, 1993 (58 FR 15014). This notice proposed to add additional chemicals to the class I list of ozone-depleting substances. The substances proposed for addition are methyl bromide and hydrobromofluorocarbons. The proposal includes recordkeeping and periodic reporting requirements for producers, importers, exporters and transformers of such newly listed substances that mirror the requirements applicable to those substances already listed. The proposed regulations also contain recordkeeping and reporting requirements for persons who destroyed, transshipped, and recycled class I and class II substances.

In addition, there are recordkeeping and reporting requirements for persons who sold, imported and transferred class I and class II substances for destruction, recycling and feedstock uses.

The information collection requirements for the proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* An Information Collection Request document has been prepared by EPA (ICR No. 1432.12) and a copy may be obtained from Sandy Farmer at the Address indicated below.

The public reporting burden for this request of information is estimated to vary from 2 to 15 hours per response with an average of 9 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information.

The information collection request sent to OMB for review and comment also describes the nature of the information collection, its expected cost and burden, and includes the data collection instruments used for already-listed class I ozone-depleting substances. In addition, the requirements for destroyers, transferrers, recyclers and transshippers are expected to be similar to the already existing information collection and recordkeeping mandates for class I substances.

Office of Air and Radiation

Title: EPA ICR 1432.12; OMB control number 2060–0170.

Abstract: Recordkeeping and reporting requirements for producers, importers, exporters and transformers on the production and consumption of newly controlled ozone-depleting substances and for destroyers, transferrers, and recyclers of class I and class II ozone-depleting substances.

Burden Statement: Public reporting burden for this collection of information is estimated to average 9 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information.

Respondents: Producers, importers, exporters and transformers of methyl bromide and hydrobromofluorocarbons. Recyclers, destroyers, transshippers and transferors of recyclable class I and class II ozone-depleting substances.

Estimated Number of Respondents: 45.

Estimated Total Annual Burden on Respondents: 1940 hours.

Frequency of Collection: Reports on the level of activities on the part of the respondents, i.e. production, imports, etc., are to be submitted quarterly. Trading of production and consumption allowances are to be reported on an ad hoc basis.

Send comments regarding the burden estimate, or any other aspect of this information collection, including suggestions for reducing the burden to:

Sandy Farmer, U.S. Environmental Protection Agency, Information Policy Branch (PM–223Y), 401 M Street, SW., Washington, DC 20460

and:

Chris Wolz, Office of Management and Budget, Office of Information and Regulatory Affairs, 725 17th Street, NW., Washington, DC 20530.

Dated: July 14, 1993.

Robert D. Brenner,

Acting Assistant Administrator, Office of Air and Radiation.

[FR Doc. 93–17155 Filed 7–19–93; 8:45am]

BILLING CODE 6560–50–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AB56

Endangered and Threatened Wildlife and Plants; Reopening of Public Comment Period and Public Hearings and Availability of an Environmental Assessment and Related Documents on the Proposed Special Rule To Allow Take of the Threatened Coastal California Gnatcatcher

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of reopening of comment period and public hearings and availability of environmental assessment and related documents on proposed special rule.

SUMMARY: The Fish and Wildlife Service (Service) reopens the public comment period for 45 days, gives notices that three public hearings will be held, and announces the availability of an Environmental Assessment on its proposal to define the conditions under which take of the threatened coastal California gnatcatcher would not be a violation of section 9 of the Endangered Species Act of 1973, as amended. In addition, the Service and the California Department of Fish and Game seek comment on the State of California's Natural Community Conservation Planning (NCCP) draft Conservation Guidelines and draft Process Guidelines. The hearings will allow all interested parties to submit oral or written comments on the proposal.

DATES: Three public hearings will be held, each from 1 to 4 p.m. and from 6 to 8 p.m. Hearings will be held on Monday, August 9, 1993, in San Diego, California; on Wednesday, August 11, 1993, in Irvine, California; and on Thursday, August 13, 1993, in Riverside, California. Comments on the proposed special rule and documents referenced above must be received from all interested parties by September 6, 1993.

ADDRESSES: The hearing on Monday, August 9, 1993, will be held at the San Diego Convention Center, 111 West Harbor Drive, room 7, San Diego, California. The Wednesday, August 11, 1993, hearing will be held at the Irvine Marriott Hotel, 18000 Von Karman, Irvine, California. The Thursday, August 12, 1993, hearing will be held at the Riverside Municipal Auditorium, 3485 7th Street, Riverside, California.

Written comments and materials on the proposed special rule, the Environmental Assessment, and other documents referenced above may be submitted at the hearing or may be sent directly to the Field Supervisor, U.S. Fish and Wildlife Service, Carlsbad Field Office, 2730 Loker Avenue West, Carlsbad, California 92008. Comments and materials received will be available for public inspection during normal business hours by appointment, at the above address.

FOR FURTHER INFORMATION CONTACT: Field Supervisor, at the address listed above (telephone 619/431–9440).

SUPPLEMENTARY INFORMATION:

Background

The coastal California gnatcatcher (*Polioptila californica californica*) was listed as a threatened species under the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*) on March 25, 1993 (58 FR 16742). The implementing regulations for threatened wildlife (50 CFR 17.31) generally incorporated the section 9 prohibitions of endangered wildlife, except when a special rule applies. In the case of the gnatcatcher, the Service found that the prohibitions of endangered species were generally necessary and advisable for conservation of species. However, pursuant to section 4(d) of the Act, and the implementing regulations, the Service proposed a special rule (58 FR 16758) that defines the conditions for land-use activities affiliated with the NCCP program under which take of the

gnatcatcher would not be a violation of section 9.

Under this special rule, the Service would permit take of the gnatcatcher by land-use activities covered by an approved NCCP plan, provided the Service determines that the approved plan meets the issuance criteria of an incidental take permit pursuant to 50 CFR 17.32(b)(2). Moreover, while NCCP plans are being developed, the special rule would permit a limited amount of take of the gnatcatcher within NCCP-enrolled areas that results from activities conducted in accordance with Conservation Guidelines developed by the Scientific Review Panel established under the NCCP process, provided that Service determines the guidelines meet the standards under 50 CFR 17.32(b)(2).

Finalization of the special rule is contingent upon adoption of the Conservation Guidelines for the Coastal Sage Scrub NCCP Program by the California Department of Fish and Game and the Service. The final draft of these Conservation Guidelines and the NCCP Process Guidelines for obtaining interim take authorization are now available for public review. Copies can be obtained from the Carlsbad Field Office (see **ADDRESSES** section).

During the public comment period on the proposed special rule, many requests were received for public hearings. In response to these requests, the Service has scheduled public hearings at the following locations:

Monday, August 9, 1993: San Diego Convention Center, 111 West Harbor Drive, San Diego, California (1 to 4 p.m. and 6 to 8 p.m.). Wednesday, August 11, 1993: Irvine Marriott Hotel, 18000 Von Karman, Irvine, California (1 to 4 p.m. and 6 to 8 p.m.). Thursday, August 12, 1993: Riverside Municipal Auditorium, 3485 7th Street, Riverside, California (1 to 4 p.m. and 6 to 8 p.m.).

Those parties wishing to make statements for the record should bring a copy of their statements to present to the Service and California Department of Fish and Game at the start of the hearing. Oral statements may be limited in length, if the number of parties present at the hearing necessitates such a limitation. There are, however, no limits to the length of written comments or materials presented at the hearing or mailed to the Service. Written comments will be given the same weight as oral comments. Written comments may be submitted at the hearing or mailed to the address given in the **ADDRESSES** section of this notice. The comment period closes on September 6, 1993.

National Environmental Policy Act

In accordance with the requirements of the National Environmental Policy Act, the Service has prepared an Environmental Assessment on the limited amount of incidental take of the gnatcatcher that would be allowed under the proposed special rule during the time that NCCP plans are being prepared. This document will be available for public review on August 2, 1993. Copies can be obtained from the Carlsbad Field Office (see **ADDRESSES** section). Written comments should be mailed to the address given in the **ADDRESSES** section of this notice. The comment period closes on September 6, 1993.

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Dated: July 14, 1993.

William E. Martin,

Acting Regional Director, Region 1, U.S. Fish and Wildlife Service.

[FR Doc. 93–17125 Filed 7–19–93; 8:45 am]

BILLING CODE 4310-55-M

Notices

Federal Register
Vol. 58, No. 137
Tuesday, July 20, 1993

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Office of the Secretary

Privacy Act of 1974; System of Records

AGENCY: Office of the Secretary, USDA.

ACTION: Notice of new Privacy Act system of records.

SUMMARY: Notice is hereby given that the Department of Agriculture (USDA) proposes to establish a new Privacy Act system of records, entitled "USDA/OIRM–1, Telephone Call Detail Records.".

EFFECTIVE DATE: The system of records will be effective, without further notice, on September 20, 1993, unless USDA issues a subsequent notice to incorporate comments received from the public. Comments must be received by the contact person listed below on or before August 19, 1993.

FOR FURTHER INFORMATION CONTACT: Cherie Cozin, Ag Box 7630, Washington, DC 20250–7630; (202) 720–9272.

SUPPLEMENTARY INFORMATION: USDA is proposing to establish a Privacy Act system of records dealing with the telephone call detail records to comply with guidelines of the Office of Management and Budget (OMB). In guidelines on the Call Detail Program, published at 52 FR 12990, April 20, 1987, OMB encouraged Federal agencies to establish systems of records to cover information pertaining to the monitoring of telephone usage to determine the use and/or abuse of Government telephone systems. OMB urged that individual record systems be established, rather than a global system, because of the variation in agency operations and records collection. Since it is anticipated that personally-identifiable records will be generated in the course of monitoring telephone calls under the Call Detail Program, USDA proposes to create the above-captioned records system. A "Report on New System," required by 5 U.S.C. 552a(r), as implemented by OMB Circular A–130, was sent to the Chairman, Senate Committee on Governmental Affairs; the Chairman, House Committee on Government Operations; and to the Acting Administrator, Office of Information and Regulatory Affairs of the Office of Management and Budget on July 1, 1993.

Signed at Washington, DC, on July 1, 1993.

Mike Espy,

Secretary of Agriculture.

USDA/OIRM–1

SYSTEM NAME:

USDA/OIRM–1, Telephone Call Detail Records.

SYSTEM LOCATIONS:

U.S. Department of Agriculture (USDA) and component agency offices nationwide.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Agriculture employees and contractor personnel who make telephone calls, and individuals who receive telephone calls placed from or charged to agency telephones.

CATEGORIES OF RECORDS IN THE SYSTEM:

Records relating to the use of agency telephones; records indicating assignment of telephone numbers to employees; records relating to location of telephones; records relating to unauthorized use of telephones and personnel or administrative actions related to telephone abuse, excluding OIG investigative and audit reports. Telephone calls made to the Department's Office of Inspector General Hotline are excluded from the records maintained in this system pursuant to the provision of 5 U.S.C., appendix 3, section 7(b) (Inspector General Act of 1978).

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

5 U.S.C. 301; Pub. L.97–258; 31 U.S.C. 1348(b); and 44 U.S.C. 3101.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

Records and data may be disclosed as is necessary (1) to members of Congress to respond to written inquiries made by individual constituents that are record subjects; (2) to representatives of the General Services Administration or the National Archives and Records Administration who are conducting records management inspections under the authority of 44 U.S.C. 2904 and 2906; (3) in response to a request for discovery or for the appearance of a witness, to the extent that what is disclosed is relevant to the subject matter involved in a pending judicial or administrative proceeding; (4) in a proceeding before a court or adjudicative body to the extent that they are relevant and necessary to the proceeding; (5) in the event that material in this system indicates a violation of law, whether civil or criminal in nature, and whether arising by general statute or by regulation, rule or order issued pursuant thereto, the relevant records may be disclosed to the appropriate agency, whether Federal, State, local or foreign, charged with the responsibility of investigating or prosecuting such violation or charged with enforcing or implementing the statute, or rule, regulation or order, issued pursuant thereto; (6) to employees of the agency to determine their individual responsibility for telephone calls and to resolve any disputes and facilitate the verification of discrepancies relating to billing, payment, or reconciliation of telephone operational or accountability records; and (7) to a company providing telecommunications consulting or other services to the Government.

DISCLOSURES TO CONSUMER REPORTING AGENCIES: DISCLOSURES PURSUANT TO 5 U.S.C. 552A(B)(12):

Disclosures may be made from this system to "consumer reporting agencies: as defined in the Fair Credit Reporting Act 15 U.S.C. 1681a(f) and the Federal Claims Collection Act of 1966 31 U.S.C. 3701(a)(3).

POLICIES AND PRACTICES OF STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN A SYSTEM:

Individuals with access to call detail records are responsible for controlling records in their possession in a way that ensures privacy. Storage of such material is also the responsibility of the individual and must be done in a way to prevent unauthorized disclosure. Telephone call detail records shall be maintained by Department personnel for periods approved by the National Archives.

STORAGE:

Call detail summaries are stored on paper in file folders, on magnetic tape, or on other electronic media.

RETRIEVABILITY:

Records may be retrieved by employee name or identification number, by name of recipient of telephone call, by telephone number, by account code card number, by type or class of service, or by location.

SAFEGUARDS:

Paper records and backup diskettes are located in locked metal filing cabinets in secure rooms; data on personal computers is password protected. Other machine readable records are stored on magnetic tape in safes accessible only to security personnel.

RETENTION AND DISPOSAL:

Records are disposed of as approved by the National Archives and Records Administration.

SYSTEM MANAGER AND ADDRESSES:

For employees of:

Agricultural Cooperative Service (ACS): Administrative Officer, USDA, ACS, Room 4011, South Building, Washington, DC 20250;

Agricultural Marketing Service (AMS): Telecommunications Specialist, USDA, AMS, ESS, Communications Section, P.O. Box 96456, Room 3528, South Building, Washington, DC 20090–6456;

Agricultural Research Service (ARS): Administrative Management Office, USDA, ARS, 6303 Ivy Lane, Room 519, Greenbelt, MD 20770–1433;

Agricultural Stabilization and Conservation Service (ASCS): Property Management Office, USDA, ASCS, P.O. Box 2415, Washington, DC 20013;

Animal and Plant Health Inspection Service (APHIS): Director, Administrative Services Division, Room 1761, South Building, 14th & Independence Avenue SW., Washington, DC 20250;

Cooperative State Research Service (CSRS): Chief, Management Services Branch, PMSD, Extension Service, Third Floor Mezzanine, Cotton Annex Building, Washington, DC 20250–0900;

Economic Analysis Staff (EAS): Director, Administrative Services Division, Economics Management Staff, Room 4322, South Building, 14th and Independence Avenue SW., Washington, DC 20250–3500;

Economics Management Staff (EMS): Director, Administrative Services Division, Economics Management Staff, Room 4322, South Building, 14th and Independence Avenue SW., Washington, DC 20250–3500;

Economic Research Service (ERS): Director, Administrative Services Division, Economics Management Staff, Room 4322, South Building, 14th and Independence Avenue SW., Washington, DC 20250–3500;

Extension Service (ES): Chief, Management Services Branch, PMSD, Extension Service, 3rd Floor Mezzanine, Cotton Annex Building, 14th & Independence Ave. SW., Washington, DC 20250–0900;

Farmers Home Administration (FmHA): Chief, General Services Branch, General Services Staff, USDA, FmHA, Room 6864, South Building, Washington, DC 20250;

Federal Crop Insurance Corporation (FCIC): Management Analyst, USDA, FCIC, Room 4613, South Building, Washington, DC 20250;

Federal Grain Inspection Service (FGIS): Director, Compliance Division, USDA, FGIS, P.O. Box 96454, Washington, DC 20090–6454;

Food and Nutrition Service (FNS): Property Utilization Specialist, USDA, FNS, 3101 Park Center Drive, room 910, Park Office Center Building, Alexandria, VA 22302;

Food Safety and Inspection Service (FSIS): Head, Property and Service Operations Sections, PPB, Administrative Services Division, USDA, FSIS, room 2136, South Building, Washington, DC 20250;

Foreign Agricultural Service (FAS): Telecommunications Manager, USDA, FAS, room 0664, South Building, Washington, DC 20250;

Forest Service (FS): Branch Chief, Computer Sciences and Telecommunications Staff, USDA, FS, room 808, Rosslyn Plaza East, 1621 North Kent Street, P.O. Box 96090, Washington, DC 20090–6090 and Field Units nation wide as listed at 36 CFR part 200, subpart A;

Human Nutrition Information Service (HNIS): Chief, Survey Statistics Branch, USDA, HNIS, room 304, Federal Building, Hyattsville, MD 20782;

National Agricultural Library (NAL): Administrative Manager, USDA, NAL, room 201, 10301 Baltimore Blvd., Beltsville, MD 20705–2351;

National Agricultural Statistics Service (NASS): Director, Program Support Staff, USDA, NASS, room 4116, South Building, 12th and Independence Avenue, SW., Washington, DC 20250;

Office of Administrative Law Judges (OALJ): Hearing Clerk, USDA, OALJ, room 1081, South Building, Washington, DC 20250;

Office of Advocacy and Enterprise (OAE): Administrative Officer, USDA, OAE, room 1326, South Building, Washington, DC 20250;

Office of Budget and Program Analysis (OBPA): Administrative Officer, USDA, OBPA, AG Box 4212; Washington, DC 20250;

Office of Energy (OE): Director, Administrative Services Division, Economics Management Staff, room 4322, South Building, 14th and Independence Avenue, SW., Washington, DC 20250–3500;

Office of Finance and Management (OFM): Administrative Officer, USDA, OFM—Headquarters, room 4082, South Building, Washington, DC 20250–9000; and, Chief, Telecommunications Branch, Information Resources Management Division, National Finance Center OFM–USDA, P.O. Box 60,000, New Orleans, LA 70160;

Office of the General Counsel (OGC): Director, Administration and Resource Management, room 2041, South Building, Washington, DC 20250;

Office of Information Resources Management (OIRM): Chief, Management Services Staff, USDA, OIRM, room 1082, South Building, 14th & Independence Ave., SW., Washington, DC 20250;

Office of International Cooperation and Development (OICD): Deputy Assistant Administrator for Administration, USDA, OICD, room 3101, South Building, Washington, DC 20250;

Office of Operation (OO): Management Analyst, USDA, OO, room 1554, South Building, Washington, DC 20250;

Office of Personnel (OP): Resource Coordinator, USDA, OP, AG Box 9602, Washington, DC 0250;

Office of Public Affairs (OPA): FOIA/Privacy Act Officer, USDA, OPA, AG Box 1310, Washington, DC 20250;

Office of the Secretary (SEC): Chief, Executive Service Staff, USDA, AG Box 0150, Washington, DC 20250;

Packers and Stockyards Administration (PSA): Director of Management Services Staff, USDA, PSA, room 3038, South Building, Washington, DC 20250;

Rural Electrification Administration (REA): Management Analyst, USDA, REA, room 0167, South Building, Washington, DC 20250;

Soil Conservation Service (SCS): Deputy Director of Budget Branch, USDA, SCS, room 6229, South Building, Washington, DC 20250;

World Agricultural Outlook Board (WAOB): Director, Administrative Services Division, Economics Management Staff, room 4322, South Building, 14th & Independence Avenue, SW., Washington, DC 20250;–3500.

NOTIFICATION PROCEDURES:

An individual may request information as to whether the system contains records pertaining to him or her from the System Manager, under the appropriate address shown above in System Manager and Address. Requester should provide his or her name pursuant to the inquiry provisions of the Department's rules which appear in 7 CFR part 1, subpart G.

RECORDS ACCESS PROCEDURES:

Requests from individuals should be addressed to the same address as stated in the notification section above. The envelope and letter should be marked "PRIVACY ACT REQUEST."

CONTESTING RECORDS PROCEDURES:

Same as Notification Procedures. The Department rules for access, for contesting contents, and appealing initial determination by the individual concerned appear in 7 CFR part 1, subpart G.

RECORD SOURCE CATEGORIES:

Records in this system come primarily from telephone assignment records; call detail listings; results of administrative inquiries relating to assignment of responsibility for placement of specific long distance calls.

SYSTEM EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

None.

[FR Doc. 93–17113 Filed 7–19–93; 8:45 am]
BILLING CODE 3410–01–M

Forest Service

Wagner/Atlanta Vegetation Treatment Proposal; Including Timber Harvest, Prescribed Fire and Temporary Road Construction, Helena National Forest, Meagher County, MT

AGENCY: Forest Service, USDA.

ACTION: Notice; intent to prepare Environmental Impact Statement.

SUMMARY: The USDA, Forest Service is gathering information and preparing an Environmental Impact Statement (EIS) for a vegetation treatment proposal. This proposal will utilize, prescribed fire on grassland/shrubland vegetation types and a combination of prescribed fire, timber harvest and reforestation within the forested vegetation, construction of needed temporary haul roads, and physical closure of all temporary roads, when no longer needed by this proposal. One and one-half miles of existing roads in the Rubison Creek, Wagner Creek, Beaver Creek, Lambing Camp Gulch, Priest Gulch, Ohio Gulch, Mule Creek and Atlanta Creek drainage areas will also be closed under this proposal. These drainage areas are located approximately 20 air miles northeast of Townsend, Montana.

The Forest Service proposes to treat approximately 7000 acres of grass land/shrubland and forested vegetation through prescribed burning and timber harvest that is based on a 25 year entry cycle. Grassland/shrubland and some forested vegetation would be treated through prescribed burning. Timber would be harvested using such harvest methods as shelterwood with reserves, seedtree with reserves, clearcutting with reserves (Treatments with reserves indicate that some trees will be left on site following the first entry with no intention of removal in subsequent entries.) and commercial thining. About 4.3 miles of reconstructed road and 18.9 miles of temporary road construction is needed to access treatment areas. Following treatment, these roads would be physically closed using such methods as recontouring and obliteration. Also, 1.5 miles of existing system roads within the project area would be closed. The overall long term transportation needs within the project area would be evaluated.

The proposal is designed to help achieve the goals and objectives of the 1986 Helena National Forest Plan and is supported by the findings of the Big Belts Integrated Resource Analysis Incorporating Ecosystems Management Principles for sustaining ecological systems. More specifically, the proposal has the following purpose:

1. Treatment of nonforested grassland vegetation through prescribed fire will promote nutrient recycling within the system, and reduce the amount of sagebrush and timber vegetation that has colonized these sites since historic times through suppression of wildfire and past grazing practices. This will help to achieve the desired condition for these areas as identified in the Helena Forest Plan and further refined in the Big Belts Integrated Resource Analysis Incorporating Ecosystems Management Principles.

2. Initiate activities to shift the age class distribution of forested vegetation towards the desired condition for the purposes of maintaining healthy and sustainable forested ecosystems and long-term sustainability of soils productivity, riparian fuction, vegetation and wildlife as described in the Helena Forest Plan and further refined in the Big Belts Integrated Resource Analysis incorporating ecosystem management principles. The existing situation for the 27,200 acre Wagner/Atlanta project area shows that about 70% of the timber stands are 100 to 125 years old and that treatment is necessary to aid in moving the project area towards the historic, more balanced distribution of age classes. Not only are there a large amount of multi-storied timber stands with similar age classes occupying warm, dry aspects, but many of them have much denser forested vegetation then occurred historically. The cool, moist aspects also are occupied by single storied forested vegetation that is denser with similar ages as compared to what was there historically. Treatment will improve long-term forest health by reducing inter-tree stress from over crowding; reducing the forests susceptibility to insect and disease, and minimizing the potential of a large scale, stand replacing fire event from occurring.

3. The analysis of the current situation indicated that one and one-half miles of the present transportation system may need to be closed in order to be compatible with the long-term big game security management goals of this area.

Experience has shown that as we implement the Helena Forest Plan, as would occur in this proposed action, we collect better on-site field information which at times results in Forest Plan amendments. To date, no amendment has been identified or is being proposed relative to this proposal. Further analysis of the proposed action and alternatives to that proposal may result in a decision(s) that include amendments to the Forest Plan.

DATES: Comments concerning the scope of the analysis should be received in writing on or before August 19, 1993.

ADDRESSES: The responsible official is Tom Clifford, Forests Supervisor, Helena National Forest, Supervisor's Office, 2880 Skyway Drive, Helena, MT 59601. Phone: (406) 449-5201.

FOR FURTHER INFORMATION CONTACT: George Weldon, Townsend District Ranger; or Stephen Wyatt, EIS Co-EIS Team Leader, Helena National Forest, Townsend Ranger District, P.O. Box 29, Townsend, MT 59644. Phone: (406) 266–3425.

SUPPLEMENTARY INFORMATION: The timber sale(s), prescribed burning, temporary road construction and closures of existing roads would occur on National Forest lands in portions of the Rubison Creek, Wagner Creek, Beaver Creek, Campbell Creek, Lambing Camp Gulch, Beaver Dam Gulch, Skiddoo Gulch, Long Gulch, Priest Gulch, Hour Gulch, Benton Gulch, Ohio Gulch, Kentucky Gulch, Thomas Creek, Bridge Gulch, Mule Creek, Pickfoot Creek and Atlanta Creek drainages of

the Townsend Ranger District. Included in the area being analyzed is all or portions of T.12N., R.2E., Section 26 and 36; T.11N., R.2E., Sections 1, 13–15, 23–25 and 26; T.11N., R.3E., Sections 19, 20, 28–35 and 36; T.10N., R.3E., Sections 3–9 and 10; T.10N., R.4E., Sections 31 and 32; T.9N., R.4E., Sections 4–8 and 9, Montana Principle Meridian.

Portions of the treatment units, temporary road construction and road closures are proposed in roadless areas. Approximately 991 acres of prescribed burning, 77 acres of timber harvest and 1 mile temporary road construction are proposed in the Cayuse Mountain Roadless Area (X1615); 1214 acres of prescribed burning, 582 acres of timber harvest, 283 acres of a combination of timber harvest and prescribed burning, and 11.8 miles of temporary road construction and closure of 1 mile of existing road are proposed in the Irish Gulch Roadless Area (1621); and 771 acres of prescribed burning, 894 acres of timber harvest, 6.1 miles of temporary road construction and closure of .5 miles of existing road are proposed in the Camas Creek Roadless Area (1616). These areas have not been proposed for inclusion in the National Wilderness System by the Helena Forest Plan nor have the Cayuse Mountain and Irish Gulch Roadless Areas been included in any of the past legislative wilderness proposals. A portion of the Camas Creek Roadless Area has been included in past legislative wilderness proposals, but none of the proposed treatments are within this area.

The areas of proposed timber harvest are within management areas L–1, M–1, T–1, T–2, T–3, T–5, W–1 and W–2 described in the Helena Forest Plan. Prescribed burning is also proposed within management areas L–1, M–1, T–1, T–3, T–5, W–1 and W–2. In many cases, combinations of timber harvest and prescribed burning are proposed. The Forest Plan direction states that:

L–1 Generally nonforest forage producing areas that forage production is optimized and timber harvest and prescribed fire may be used as tools for this purpose, but not for timber management sake.

M–1 Nonforested and forested lands where timber management and range or wildlife habitat improvements are currently uneconomical or environmentally infeasible.

T–1 Management areas are available and suitable for timber harvest.

T–2 Should be maintained or enhanced for big game winter range for which timber harvest and prescribed fire may be used.

T–3 Should be managed in such a way to maintain and/or enhance habitat characteristics favoring elk and other big game species allowing the use of timber harvest and prescribed fire.

T–5 is timber management ground that increased forage production is favored in which timber harvest and prescribed fire can be used.

W–1 Wildlife (summer and winter range) and old growth potential is optimized in the long run. Timber harvest and prescribed fire can be used only if they can be used as tools to maintain or enhance wildlife habitat values. These areas are generally classified as unsuitable for timber management.

W–2 Important spring, summer and fall habitat for big game, such as elk and deer. Forage for both big game and livestock must be provided. Timber harvest and prescribed fire can be used only to maintain or enhance habitat values.

The decisions to be made, based on this environmental analysis, are:

(1) Whether or not to treat the forested and nonforested vegetation at this time, and if so, how would the treatments be accomplished?

(2) What type of transportation system, if any, will be necessary to accomplish the vegetation management objectives, while considering other resource transportation needs and objectives.

If it is decided to treat the vegetation at this time, activities may begin as early as 1995 and take up to 5–8 years to implement. Proposed treatments and associated temporary road construction need to meet the project objectives.

This EIS will tier to the Helena Forest Plan and Final EIS of April 1986, that provides program goals, objectives and standards and guidelines for conducting management activities in this area. All activities associated with the proposal will be designed to maintain or enhance the resource objectives identifies in the Forest Plan and further refined in the Big Belts Integrated Resource Analysis Incorporating Ecosystems Management Principles.

The Big Belts Integrated Resource Analysis was completed in March 1993. As part of the Belt analysis, a long-term work plan to carry out the direction of the Helena Forest Plan and sustaining the ecological systems was developed. Analysis and collection of site specific data has been on-going.

The Forest Service is seeking information and comments from Federal, State, local agencies and others organizations or individuals who may be interested in or affected by the proposed action. The Forest Service invites written comments and suggestions on the issues for the proposal and the area being analyzed. Information received will be used in preparation of the Draft EIS. Preparation of the EIS will include the following steps:

1. Identification of potential issues.
2. Identification of issues to be analyzed in depth.
3. Elimination of insignificant issues or those that have been covered by a relevant previous environmental analysis.
4. Identification of additional reasonable alternatives.
5. Identification of potential environmental effects of the alternatives.

Prescribed harvest treatments in this proposal include even aged management techniques of clearcutting with reserves, seed tree with reserves and shelterwood with reserves as well as prescribed burning nonforested and forested vegetation. Alternatives to this proposal will include the "no action" alternative, in which none of the proposed treatments would be implemented. Other alternatives will examine variations in the amount of timber harvest using even aged and uneven aged harvest methods and variations in the amount of burning. Alternatives to the proposed action will be developed to respond to the purpose and need for the action.

The preliminary issues identified are:

1. What effects will the proposal have on forested and nonforested vegetation?
2. How will recreation and visual resources be affected by the proposal?
3. What effect will the proposal have on the fisheries and wildlife resources?
4. What effect will the proposal have on the Cayuse Mountain, Irish Gulch and Camas Creek Roadless Areas?
5. What effect will the proposal have on riparian management and function?
6. What effect will the proposal have on livestock grazing?
7. What effect will the proposal have on air quality?
8. What are the economic trade-offs of implementing this proposal?

The Forest Service will analyze and disclose in the DEIS and FEIS the environmental effects of the proposed action and a reasonable range of alternatives. The DEIS and FEIS will disclose the direct, indirect and cumulative environmental effects of each alternative and its associated site specific mitigation measures.

Public participation is especially important at several points of the

analysis. Interested parties may visit with the Forest Service officials at any time during the analysis. However, two periods of time are specifically identified for the receipt of comments. The first comment period is during the scoping process when the public is invited to give written comments and the Forest Service will conduct public open house/workshops in; Townsend on July 20, 1993 at the Townsend Ranger Station, 415 South Front Street; in White Sulphur Springs on July 21, 1993 at the Kings Hill Ranger Station, 204 W. Folsom; and in Helena, Montana on July 22, 1993 at the Helena National Forest Supervisors Office, 2880 Skyway Drive. All open house/workshops will be held between the hours of 4 and 7 p.m. for the receipt of verbal comments. The dates and locations will be published locally. This period extends for 30 days from the date of publication of this notice. The second review period is during the review of the DEIS in and when the public is invited to comment on the DEIS.

The DEIS is expected to be filed with the Environmental Protection Agency (EPA) and available for public review in January 1994. At that time, the EPA will publish a notice of availability of the DEIS in the **Federal Register**.

The comment period on the DEIS will be 45 days from the date the notice of availability is published in the **Federal Register**.

At this early stage in the scoping process, the Forest Service believes it is important to give reviewers notice of several court rulings related to public participation in the environmental review process. First, reviews of DEIS must structure their participation in the environmental review of the proposal so that it is meaningful and alerts an agency to the reviewer's position and contentions. *Vermont Yankee Nuclear Power Corp.* v. *NRDC*, 435 U.S. 519, 553 (1978). Secondly, environmental objections that could be raised at the draft environmental impact statement stage, but that are not raised until after completion of the FEIS may be waived or dismissed by the courts. *City of Angoon* v. *Hodel*, 803 F. 2d 1016, 1022 (9th cir. 1986) and *Wisconsin Heritages, Inc.* v. *Harris*, 490 F. Supp. 1338 (E.D. Wis. 1980). Because of these court rulings, it is very important that those interested in this proposed action participate by the close of the 45-day comment period so that substantive comments and objections are made available to the Forest Service at a time when it can meaningfully consider them and respond to them in the FEIS.

To assist the Forest Service in identifying and considering issues and concerns on the proposed action, comments on the DEIS should be as specific as possible. It is also helpful if comments refer to specific pages or chapters of the draft statement. Comments may also address the adequacy of the DEIS or the merits of the alternatives formulated and discussed in the statement. (Reviewers may wish to refer to the Council on Environmental Quality Regulations for implementing the procedural provisions of the National Environmental Policy Act at 40 CFR 1503.3 in addressing these points.)

After the comment period ends on the DEIS, the comments will be analyzed and considered by the Forest Service in preparing the FEIS. The FEIS is expected to be filed in June 1994.

Dated: June 29, 1993.

Tom Clifford,

Forest Supervisor, Helena National Forest.

[FR Doc. 93–17083 Filed 7–19–93; 8:45 am]

BILLING CODE 3410–11–M

DEPARTMENT OF COMMERCE

Agency Form Under Review by the Office of Management and Budget

DOC has submitted to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

Agency: Bureau of the Census.

Title: Survey of Income and Program Participation – 1992 Panel Wave 7.

Form Number(s): SIPP–12700, SIPP–12705(L), SIPP–127/13403, SIPP–127/13404 A–D.

Agency Approval Number: 0607–0723.

Type of Request: Revision of a currently approved collection.

Burden: 63,000 hours.

Number of Respondents: 42,000.

Avg Hours Per Response: 30 minutes.

Needs and Uses: The Survey of Income and Program Participation (SIPP) provides information concerning the distribution of income received directly as money or indirectly as in–kind benefits and the effect of tax and transfer programs on this distribution. The survey is molded around a central core of labor force and income questions that are periodically supplemented with additional questions, referred to as topical modules, designed to answer specific needs. The topical modules for the 1992 Panel Wave 7 are the following: (1) Selected Financial Assets, (2) Medical Expenses and Work Disability, and (3) Real Estate, Shelter Costs, Dependent Care, and Vehicles. Also, topical module items have been added in Section 3 of the core: Part D––Stocks and Mutual Fund Shares, Part E—Rental Income, and Part F—Mortgages, Royalties, and Other Financial Investments. Wave 7 interviews will be conducted from February through May 1994.

Affected Public: Individuals or households.

Frequency: Once during the life of the panel.

Respondent's Obligation: Voluntary.

OMB Desk Officer: Maria Gonzalez, (202) 395–7313.

Copies of the above information collection proposal can be obtained by calling or writing Edward Michals, DOC Forms Clearance Officer, (202) 482–3271, Department of Commerce, room 5312, 14th and Constitution Avenue, NW, Washington, DC 20230.

Written comments and recommendations for the proposed information collection should be sent to Maria Gonzalez, OMB Desk Officer, room 3208, New Executive Office Building, Washington, DC 20503.

Dated: July 13, 1993.

Edward Michals,

Departmental Forms Clearance Officer, Office of Management and Organization.

[FR Doc. 93–17177 Filed 7–19–93; 8:45 am]

BILLING CODE 3510–07–F

Bureau of the Census

[Docket No. 930636–3136]

Final Criteria for Assessing Design Alternatives for the 2000 Census

AGENCY: Bureau of the Census, Commerce.

ACTION: Final notice.

SUMMARY: The purpose of this notice is to inform the public about final criteria for assessing design alternatives for the 2000 census, and to explain changes that were made to the criteria based upon comments the Bureau of the Census received as a result of the March 25, 1993 **Federal Register**, 58 FR 16171, notice containing the proposed criteria.

EFFECTIVE DATE: July 20, 1993.

FOR FURTHER INFORMATION CONTACT: James L. Dinwiddie, Program Manager, Year 2000 Research and Development Staff, Bureau of the Census, telephone 301–763–4265.

SUPPLEMENTARY INFORMATION:

I. Purpose and Background

The decennial census is taken every 10 years. The census provides data for reapportioning seats in the House of

Representatives among the states and establishing districts within each state; it also supplies data about the population of the Nation for a variety of other uses, including allocation of Federal funds.

Features of the final design for taking the 2000 census must be determined by December 1995 to allow for operational planning for, preparatory activities in connection with, and implementation of the design. A major source of information for determining the final design will be a set of field tests of potential features for the final design in the spring of 1995. Those tests will evaluate a number of design features. Features to be tested must be selected by September 1993 to allow for planning, implementation, and evaluation of the tests.

Design features were evaluated and the evaluation was described in a series of design alternative recommendations (DARs). The DARs are available for comment.

This notice contains final criteria for assessing designs. The criteria were initially published in the **Federal Register**, 58 FR 16171, March 25, 1993, and comments were requested. The Census Bureau received and reviewed 146 responses to the **Federal Register** notice, including several received after the deadline. Many of the comments were valuable and directly relevant to helping the Census Bureau refine the criteria for assessing designs.

As a result of the review of the responses, the Census Bureau deleted 2 of the 13 desirable criteria, made one desirable criterion mandatory, and made minor changes to the titles or descriptions of 3 other desirable criteria.

One of the desirable criteria the Census Bureau deleted was the one that specified that methods and procedures should be understandable and credible to the public. Because the Census Bureau will be using an open process for 2000 census design and planning, it believes that the process will ensure that stakeholders will be able to understand the methods and procedures that it uses in 2000.

The second criterion deleted was the one that said that a Federal statistical structure should be in place to support the census. The Census Bureau deleted this criterion because it was confusing and implied activities for which the Census Bureau does not have ultimate responsibility.

The desirable criterion that the Census Bureau made mandatory was the one that says a design should have the ability to reduce the differential undercount. This reflects the high level of comments that the Census Bureau received recommending that this criterion be mandatory and the Census Bureau's commitment to attempting to reducing differential undercount for the 2000 census.

References in the following text to an individual criterion use the numbers in this notice, not the number of the criterion used in the March 25, 1993 notice.

II. Final Mandatory and Desirable Criteria for Assessing Designs. The final criteria, accompanied with a summary of comments, responses, and conclusions are:

Mandatory Criteria

Any design that will be considered for the 2000 census must meet all of the following criteria:

1. Not require a Constitutional Amendment.

Description: It is not feasible to seek a Constitutional amendment between now and the year 2000 to allow the Census Bureau to implement a design.

Summary of Comments: The Census Bureau received one comment on this criterion. This comment recommended that the Census Bureau should not seek a constitutional amendment.

Response: The only comment received was in agreement with the criterion.

Conclusion: The criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

2. Meet data requirements for reapportionment.

Description: Tabulations of persons in each state, for the purpose of apportioning Representatives among the states, must be provided by the design.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. Data for reapportionment/redistricting are critical, with an emphasis on the need for small area data.

2. This criterion should require actual counts rather than sample data.

3. The Census Bureau should provide maps that display all tabulation levels including voting districts.

Response: 1. The Census Bureau agrees with the comments about the importance of these data for reapportionment. The emphasis on small area data is not applicable to this criterion, since small area data are not required for reapportionment.

2. The Census Bureau acknowledges comments concerning the use of sampling. This issue is fundamentally one of equity in drawing voting district boundaries, and thus the assurance of accuracy of data at small geographic levels is needed. The error at any geographic level is a function of both sampling error and nonsampling error. The Census Bureau will evaluate the total error at various geographic levels. The Census Bureau may consider using an estimation process to produce estimates at the block level. Thus, the possible use of counts or count estimates will be determined after further research. To assess different design alternatives, the Census Bureau needs to be as flexible and open as possible at this stage of the process with respect to the issues of sampling.

3. While this is a valuable comment to consider in the overall planning of the census, it is too specific to use in assessing design alternatives.

Conclusion: The criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

3. Provide data defined by law and past practice for state redistricting.

Description: Any selected design must be able to produce tabulations of the population for small geographic areas (that is, blocks) that are required for state redistricting. This does not necessarily preclude the use of sampling to produce these data.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. Data at the small geographic level are necessary for redistricting.

2. Sampling should not be used to produce the data required for redistricting. It is critical that a 100 percent count be used to produce these data.

3. Substitute "reliable estimates" for "counts," and "block groups, enumeration districts, or minor civil divisions" for "blocks."

Response: 1. The comments are compatible with this criterion.

2. The Census Bureau acknowledges comments concerning the use of sampling. This issue is fundamentally one of equity in drawing voting district boundaries, and thus the assurance of accuracy of data at small geographic levels is needed. The error at any geographic level is a function of both sampling error and nonsampling error. The Census Bureau will evaluate the total error at various geographic levels. The Census Bureau may consider using an estimation process to produce estimates at the block level. Thus, the possible use of counts or count estimates will be determined after further research. To assess different design alternatives, the Census Bureau needs to be as flexible and open as possible at this stage of the process with respect to the issues of sampling.

3. The Census Bureau, after further review, changed the word "counts" to

"tabulations," but did not change the word "blocks" as it is the more appropriate terminology, since data are available nationally at the block level.

Conclusion: The description of the criterion was modified slightly; otherwise, the criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

4. Provide age and race/ethnic data defined by law to meet the requirements of enforcing the Voting Rights Act.

Description: Any selected design must be able to produce, for small geographic areas usable for state redistricting, tabulations of the population by: age 18+ and the racial/hispanic origin detail provided in the 1990 product for purposes of Public Law 94–171 (data for the redistricting program). This does not necessarily preclude the use of sampling to produce these data.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. Sampling should not be used to provide the data required for the Voting Rights Act. The reference to sampling should be removed.

2. It is critical that information required by all of the Voting Rights Act provisions as well as other Federal mandates also be included in this criterion.

3. Data at small geographic levels are necessary for enforcing the Voting Rights Act.

4. The Census Bureau should examine the use of its terminology for specific minority populations.

Response: 1. The Census Bureau acknowledges comments concerning the use of sampling. This issue is fundamentally one of equity in drawing voting district boundaries, and thus the assurance of accuracy of data at small geographic levels is needed. The error at any geographic level is a function of both sampling error and nonsampling error. The Census Bureau will evaluate the total error at various geographic levels. The Census Bureau may consider using an estimation process to produce estimates at the block level. Thus, the possible use of counts or count estimates will be determined after further research. To assess different design alternatives, the Census Bureau needs to be as flexible and open as possible at this stage of the process with respect to the issues of sampling.

2. The Census Bureau explicitly intends mandatory criterion #3 to refer to age race/ethnic (100 percent) data defined by law to meet the requirements of enforcing voting rights protections guaranteed by Section 5 of the Voting Rights Act. The Census Bureau is in agreement with those comments expressing the importance of these data. This criterion explicitly does not refer to the data required by the voting language assistance provision of the Voting Rights Act. Comments concerning the need for these data as well as data required to support other Federal mandates are not applicable to this criterion. Comments concerning the need for socioeconomic data at small geographic levels are addressed in desirable criterion #2.

3. The comments are compatible with the criterion.

4. While this is a valuable comment to consider in the overall planning of the census, it is too specific to use in assessing design alternatives.

Conclusion: The criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

5. Protect the confidentiality of respondents.

Description: No design is acceptable if it jeopardizes the ability of the Census Bureau to control and protect against release of identifiable individual data.

Summary of Comments: The Census Bureau received one comment on this criterion. The comment stated that this criterion may be in conflict with desirable criterion #10, Provision of opportunities to involve the U.S. Postal Service; state, local, American Indian Tribal and Alaska Native Village governments; national organizations; and other private, nonprofit, and commercial enterprises.

Response: Since the Census Bureau has involved and will continue to involve these organizations without a breach of confidentiality, the Census Bureau does not believe that this comment disagrees with the criterion. Conclusion. The criterion remains as proposed in the March 25, 1993, **Federal Register** notice.

6. (Previously desirable criterion #1) Ability to reduce the differential undercount.

Description: Each design must be assessed in terms of its potential to reduce the differential levels of coverage of population groups and geographic areas that have historically occurred in the census.

Summary of Comments: All comments received by the Census Bureau strongly support this criterion, and most recommended that this be made a mandatory criterion.

Response: The Census Bureau agreed that this should be a mandatory criterion. The Census Bureau received numerous comments as a result of the March 25, 1993 **Federal Register** notice on this criterion. These comments provided the Census Bureau with cogent reasons for making this criterion mandatory.

Conclusion: The criterion is changed to a mandatory criterion; otherwise it remains as proposed in the March 25, 1993 **Federal Register** notice.

Desirable Criteria

Each design meeting the mandatory criteria will be assessed for the following: 1. (Previously desirable criterion #2) Result in comparative cost effectiveness with respect to other alternatives under consideration in real terms on a per unit basis.

Description: The cost of the census has increased significantly over the last three censuses, and it is important to select a design that considers cost in assessing the quality of the results.

Summary of Comments: 1. The comments received by the Census Bureau on this criterion acknowledge that cost is important. Many comments went on further to say that although cost is important, it should not be a final determinant. Other considerations should include the need for specific data content, quality of data, importance of technical and procedural methods, geographic coverage, and the overall importance of the census to the Nation.

2. Concern was expressed that this criterion could potentially be used to reduce or eliminate housing questions from the decennial census.

3. This criterion is unclear. It is unclear what "in real terms on a per unit basis" means. The relation between cost effectiveness and differential effects needs to be thought out.

Response: 1. The comments are compatible with the criterion.

2. Specific issues about data content are being addressed in the upcoming data content process. This process is dedicated to dealing with nothing but issues of data content. The Census Bureau plans to consult with Federal and non-Federal data users to determine the overall scope and specific content detail for the 2000 census. Between now and the end of 1995, the Census Bureau will continue to consult with a full range of data users, both Federal and non-Federal, on content needs before a decision needs to be made on the final design for the 2000 census.

3. The Census Bureau determined that this criterion is clear. The cost of the census has increased over the last three censuses due to inflation, the increased workload, and declining public responsiveness. If these trends continue the Census Bureau needs to consider cost in assessing the quality of results.

Conclusion: The criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

2. (Previously desirable criterion #3) Provide small area data that the census is uniquely capable of supplying.

Description: The uses of census data require that they be accurate and of uniform quality for various geographic levels. Each design will be assessed for its ability to meet these goals and for the degree to which it collects information that can best be supplied by a census rather than a survey or other sources.

Summary of Comments: The Census Bureau received the following comments:

1. This criterion should be made mandatory.

2. There is a critical need for small area socioeconomic data that are only available from the decennial census.

3. This criterion should not be used to justify eliminating housing content from the 2000 census.

4. To meet the time requirements for reapportionment the Census Bureau may need to simplify the data that are collected and reported.

5. Data for redistricting purposes should not be generated from a sample.

6. The geographic base for the census is critical and attention should be paid to TIGER while planning for the 2000 census is underway.

7. Reduce the number of criteria by combining desirable criteria 2 and 4, and desirable criteria 5 and 6. This would help in the timely selection of the best design for 2000.

8. This criterion is unclear. The criterion suggests an unnecessary dichotomy between a "census" and "other sources."

Response: 1. The Census Bureau decided not to make this a mandatory criterion. The concerns and comments about the need for small area socioeconomic data are being fully addressed in the upcoming data content process. This process is dedicated to dealing with nothing but issues of data content. The Census Bureau plans to consult with Federal and non-Federal data users to determine the overall scope and specific content detail for the 2000 census. Between now and the end of 1995, the Census Bureau will continue to consult with a full range of data users, both Federal and non-Federal, on content needs before a decision needs to be made on the final design for the 2000 census.

2. The title of this criterion was changed to reflect the orientation toward and importance of small area data to the user community. Specific issues of data content are being addressed in the data content process. See the discussion in response 1.

3. Specific issues of data content are being addressed in the data content process. See the discussion in response 1.

4. The Census Bureau does not agree that it will have to simplify the data it collects in order to meet the time requirements for reapportionment. The history of past censuses supports the Census Bureau's position.

5. The Census Bureau acknowledges comments concerning the use of sampling. This issue is fundamentally one of equity in drawing voting district boundaries, and thus the assurance of accuracy of data at small geographic levels in need. The error at any geographic level is a function of both sampling error and nonsampling error. The Census Bureau will evaluate the total error at various geographic levels. The Census Bureau may consider using an estimation process to produce estimates at the block level. Thus, the possible use of counts or count estimates will be determined after further research. To assess different design alternatives, the Census Bureau needs to be as flexible and open as possible at this stage of the process with respect to the issues of sampling.

6. The Census Bureau agrees with this comment. While it is a valuable comment to consider in the overall planning of the census, it is too specific to use in assessing design alternatives.

7. The Census Bureau determined that these criteria need to be described separately. This will provide for the most open and flexible process in evaluating design features.

8. The Census Bureau determined that this criterion is clear. The word "census" is used in reference to the decennial census, which will encompass all methodologies and technologies, as deemed accurate and practical, for collecting data. It is not limited to just the traditional head count, but could, if so determined, include such methodologies as the use of sampling, statistical estimation, administrative records, or surveys for collecting certain data.

Conclusion: The title of the criterion was changed to reflect the importance of small area data to the user community.

3. (Previously desirable criterion #4) Provide a single, best set of census results produced by legal deadlines for reapportionment and redistricting.

Description: The designs under consideration vary in combining direct enumeration and estimation techniques to produce the census results. It is highly desirable to specify a design that has an appropriate combination of these techniques and integrates the results on a time schedule that provides a single set of counts and characteristics by mandated statutory deadlines. Each design must be assessed in terms of the likelihood of meeting these objectives. While the Census Bureau does not necessarily assume that current deadlines will remain unchanged, it expects that a convincing case must be made for proposing the legislative actions that would be required to change them.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. One set of numbers is desirable.

2. Meeting state and Federal legal deadlines for redistricting is critical.

3. There are serious problems in using more than one set of data. However, it would be unfortunate if the Census Bureau were prohibited from producing known significantly improved data because of statutory deadlines.

4. Reduce the number of criteria by combining desirable criteria 2 and 4, and desirable criteria 5 and 6. This would help in the timely selection of the best design for the 2000 census.

Response: 1/2. The comments are compatible with the criterion.

3. The Census Bureau understands the concerns expressed in this comment. The Census Bureau is providing for as open and flexible process as possible in evaluating design features in order to ensure the best census possible.

4. The Census Bureau determined that these criteria need to be described separately. This will provide for the most open and flexible process in evaluating design features.

Conclusion: The criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

4. (Previously desirable criterion #5) Provide an overall high level of coverage.

Description: In addition to reduction of differential coverage, each design must be assessed in terms of the degree to which it ensures the best absolute coverage of the population.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. This criterion is important in evaluating the design alternatives.

2. It should be made mandatory.

3. This criterion should be combined with the criterion on differential undercount (mandatory criterion #6).

4. This criterion might be in conflict with the criterion on differential undercount (mandatory criterion #6).

5. Ensure coverage of specific populations such as persons with limited English proficiency.

6. The meaning of this criterion is unclear. Presumably the goal of improving the census should be to reduce inaccuracies across the board.

Speaking hypothetically, however, a new methodology that almost totally eliminates differential undercount, while increasing total undercount only slightly, should not be ruled out automatically.

Response: 1. The comments are compatible with the criterion.

2. The Census Bureau decided not to make this a mandatory criterion. Certain criteria are clearly more critical in assessing the design features of the census than others, and because of their relative importance these criteria become mandatory. In essence they become the "bottom line" for conducting the census. Other criteria are important and the Census Bureau appreciates the comments and acknowledges the concerns about these criteria; but, in the best judgment of the Census Bureau these are not mandatory criteria. In considering whether a criterion should be mandatory or desirable the Census Bureau considered such factors as its importance, whether or not it would be in conflict with a mandatory criterion, and whether or not the Census Bureau could accomplish it.

3. The Census Bureau, after further review, determined that this criterion needs to be described separately from mandatory criterion #6, since new methodologies and technologies may reduce the differential undercount without providing an overall high level of coverage.

4. The Census Bureau understands that this criterion may be in conflict with mandatory criterion #6, since new methodologies and technologies may reduce the differential undercount without providing an overall high level of coverage. That is one of the reasons why the Census Bureau did not make it a mandatory criterion.

5. While this is a valuable comment to consider in the overall planning of the census, it is too specific to use in assessing design alternatives.

6. After further review, the Census Bureau decided that this criterion is clear as it is written. The Census Bureau agrees with the remainder of the comment. Thus, the Census Bureau is maintaining as open and flexible process as possible in order to evaluate as many potential methodologies and technologies as possible. The Census Bureau will attempt to reduce/eliminate the differential undercount as well as provide an overall high level of coverage.

Conclusion: The criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

5. (Previously desirable criterion #6) Increase the primary response rate to the census.

Description: Public cooperation in responding to the census is a key element in controlling the costs while ensuring the quality of the census. Each design will be assessed in terms of the degree to which it facilitates public participation and compliance. Aspects of improving the response rate include the design of the census questionnaire, the number and type of census questions, and the incorporation of a variety of ways the population can receive and respond to the census inquiry.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. This is a valuable criterion.

2. The Census Bureau should not ignore the quality of the data.

3. This criterion should be made mandatory.

4. The Census Bureau should not use sampling to derive the basic redistricting counts; do not use sampling if it means the weighting of nonresponse house units by non-response sampling.

5. The Census Bureau should use positive incentives to increase the overall response rate.

6. Reduce the number of criteria by combining desirable criteria 2 and 4, and desirable criteria 5 and 6. This would help in the timely selection of the best design for the 2000 census.

7. This is not an end to itself, but rather a means to an end, and should not be a criterion.

Response: 1/2. The comments are compatible with the criterion.

3. The Census Bureau decided not to make this a mandatory criterion. Certain criteria are clearly more critical in assessing the design features of the census than others, and because of their relative importance these criteria become mandatory. In essence they become the "bottom line" for conducting the census. Other criteria are important and the Census Bureau appreciates the comments and acknowledges the concerns about these criteria; but, in the best judgment of the Census Bureau these are not mandatory criteria. In considering whether a criterion should be mandatory or desirable the Census Bureau considered such factors as its importance, whether or not it would be in conflict with a mandatory criterion, and whether or not the Census Bureau could accomplish it.

4. The Census Bureau acknowledges comments concerning the use of sampling. This issue is fundamentally one of equity in drawing voting district boundaries, and thus the assurance of accuracy of data at small geographic levels is needed. The error at any geographic level is a function of both sampling error and nonsampling error. The Census Bureau will evaluate the total error at various geographic levels. The Census Bureau may consider using an estimation process to produce estimates at the block level. Thus, the possible use of counts or count estimates will be determined after further research. To assess different design alternatives, the Census Bureau needs to be as flexible and open as possible at this stage of the process with respect to the issues of sampling.

5. The Census Bureau agrees that it should examine ways to increase the response rate and this research is ongoing. While this is a valuable comment to use in the overall planning of the census, it is too specific to use in assessing design alternatives.

6. The Census Bureau determined that these criteria need to be described separately. This will provide for the most open and flexible process as possible in evaluating design features.

7. The purpose of the criteria is to provide guidelines for the Census Bureau to use in assessing the design alternatives. These criteria are not absolute requirements for assessing the designs.

Conclusion: The criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

6. (Previously desirable criterion #7) Level of respondent burden.

Description: The level of respondent burden attendant to each design will be assessed. Consideration will be given to such measures of burden as the time needed for the public to supply the information, the number and type of questions, and the number of persons who are designated to supply information.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. Respondent burden needs to be considered in terms of data needs and accuracy, and ease of compliance; for example, ability to read English.

2. This criterion should be deleted.

3. The Census Bureau needs to quantify the criterion.

4. This criterion should be combined with desirable criterion #1.

5. Reduce the number of criteria by combining desirable criteria 2 and 4, and desirable criteria 5 and 6. This would help in the timely selection of the best design for the 2000 census.

6. This criterion appears to be an explanation of intended work rather than a criterion.

7. This is not an end to itself, but rather a means to an end, and should not be a criterion.

Response:

1. The description of this criterion was expanded to include additional factors other than just time needed to supply the information in evaluating response burden.

2. The Census Bureau, after reviewing the comment, determined that this criterion should remain. There is strong support for this criterion from the Office of Management and Budget because of their responsibility to review and reduce the paperwork burden on the American population.

3. This comment would unnecessarily constrain this criterion. However, in evaluating the final design the Census Bureau will quantify the level of respondent burden.

4. The Census Bureau, after reviewing the comment, has determined that this criterion needs to be described separately from desirable criterion #1. The Census Bureau views the cost of the census and response burden as two separate issues. Further, the purpose of the criteria is to provide guidelines for the Census Bureau to use in assessing the design alternatives. These criteria are not absolute requirements for assessing the designs.

5. The Census Bureau determined that these criteria need to be described separately. This will provide for the most open and flexible process in evaluating design features.

6/7. The purpose of the criteria is to provide guidelines for the Census Bureau to use in assessing the design alternatives. These criteria are not absolute requirements for assessing the designs.

Conclusion: The description of this criterion was expanded; otherwise the criterion remains as proposed in the March 25 **Federal Register** notice.

7. (Previously desirable criterion #8) Degree and type of changes needed in Federal or state law.

Description: The Census Bureau will determine, for each design, whether one or more features of the design require changes in existing law. The actions needed to implement such changes, and the viability of doing so, will be evaluated.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. This criterion is important in evaluating design alternatives. One commentor went on to say that "Rather than relying solely on the Bureau's assessment of legal requirements, however, we recommend considering other processes for resolving these questions. One possible avenue would be declaratory judgement actions, with the Census Bureau and affected jurisdictions as parties, to obtain binding rulings on legal requirements relating to the census process."

2. It should be made a mandatory criterion.

3. This criterion appeared to be an explanation of intended work rather than a criterion.

4. This criterion does not clarify whether legislative changes will be viewed as insurmountable barriers. If not, this criterion may be unnecessary.

Response: 1. The comments are compatible with the criterion.

2. The Census Bureau decided not to make this a mandatory criterion. Certain criteria are clearly more critical in assessing the design features of the census than others, and because of their relative importance these criteria become mandatory. In essence they become the "bottom line" for conducting the census. Other criteria are important and the Census Bureau appreciates the comments and acknowledges the concerns about these criteria; but, in the best judgment of the Census Bureau these are not mandatory criteria. In considering whether a criterion should be mandatory or desirable the Census Bureau considered such factors as its importance, whether or not it would be in conflict with a mandatory criteria, and whether or not the Census Bureau could accomplish it.

3. The purpose of the criteria is to provide guidelines for the Census Bureau to use in assessing the design alternatives. These criteria are not absolute requirements for assessing the designs.

4. The Census Bureau, after reviewing this comment, determined that the criterion should be retained. The Census Bureau will determine legal changes needed in the selection of the final design.

Conclusion: The criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

8. (Previously desirable criterion #9) Reliance on new or unproven methods or capabilities.

Description: Several of the designs under consideration are dependent on major changes or improvements in census methodologies and technologies. For example, some of the designs rely on the ability to quickly and accurately identify people who may be enumerated multiple times or appear on multiple administrative records. Other design features require an unprecedented degree of access to administrative records. All the designs, to differing degrees, rely on having a complete and reasonably accurate geographic database linked to a current and comprehensive address control database. These kinds of issues and capabilities are currently undergoing research and development, but will not be fully in place by September 1993 when the Census Bureau must select the design features for the 1995 test. For each design, the Census Bureau will assess the degree to which one or more features rely on methods that are not fully developed, the steps that must be taken to develop the methods, and risk to the design if full development is unsuccessful.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. This criterion should be made mandatory.

2. This criterion appears to be an explanation of intended work rather than a criterion.

3. The Census Bureau should not use sampling to derive basic redistricting counts; do not use sampling if it means the weighting of nonresponse housing units by nonresponse sampling.

4. Planning should be flexible.

5. The Census Bureau should develop a model to quantify concepts such as cost and risk.

6. There is no significant difference between this criterion and desirable criterion 9.

7. Desirable criteria 8, 9, and 12 should be combined.

Response: 1. The Census Bureau decided not to make this a mandatory criterion. Certain criteria are clearly more critical in assessing the design features of the census than others, and because of their relative importance these criteria become mandatory. In essence they become the "bottom line" for conducting the census. Other criteria are important and the Census Bureau appreciates the comments and acknowledges the concerns about these criteria; but, in the best judgment of the Census Bureau these are not mandatory criteria. In considering whether a criterion should be mandatory or desirable, the Census Bureau considered such factors as its importance, whether or not it would be in conflict with a mandatory criterion, and whether or not the Census Bureau could accomplish it.

2. The purpose of the criteria is to provide guidelines for the Census Bureau to use in assessing the design alternatives. These criteria are not absolute requirements for assessing the designs.

3. The Census Bureau acknowledges comments concerning the use of sampling. This issue is fundamentally one of equity in drawing voting district boundaries, and thus the assurance of accuracy of data at small geographic levels is needed. The error at any geographic level is a function of both

sampling error and nonsampling error. The Census Bureau will evaluate the total error at various geographic levels. The Census Bureau may consider using an estimation process to produce estimates at the block level. Thus, the possible use of counts or count estimates will be determined after further research. To assess different design alternatives, the Census Bureau needs to be as flexible and open as possible at this stage of the process with respect to the issues of sampling.

4. The Census Bureau is making every attempt to keep this process as open and flexible as possible. The Census Bureau is in agreement with this comment.

5. This comment would unnecessarily constrain the criterion.

6. The Census Bureau, after reviewing this comment, determined that desirable criteria 8 and 9 are significantly different. This criterion addresses individual improvements; the next criterion addresses all as a whole.

7. The Census Bureau, after reviewing this comment, determined that desirable criteria 8, 9, and 12 are significantly different. This criterion addresses individual improvements; the next criterion addresses all as a whole. Desirable criterion #12 was deleted. (See response for desirable criterion #12.)

Conclusion: The criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

9. (Previously desirable criterion #11) Major design features can be tested and developed.

Description: The census is a massive, complex, and expensive undertaking. Stakeholders and the public need assurance in the success of its operational implementation and the resultant quality of its products. The Census Bureau must be able to fully test and develop the logistical, technological, and operational requirements for the chosen design. Each design under consideration will be assessed to determine if, taken together, its components produce the desired result.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. This should be a mandatory criterion.

2. The Census Bureau should maintain flexibility in the planning process.

3. This criterion is not significantly different from desirable criterion #9.

4. Desirable criteria 8, 9, and 12 should be combined.

Response: 1. The Census Bureau decided not to make this a mandatory criterion. Certain criteria are clearly more critical in assessing the design features of the census than others, and because of their relative importance these criteria become mandatory. In essence they become the "bottom line" for conducting the census. Other criteria are important and the Census Bureau appreciates the comments and acknowledges the concerns about these criteria; but, in the best judgment of the Census Bureau these are not mandatory criteria. In considering whether a criterion should be mandatory or desirable, the Census Bureau considered such factors as its importance, whether or not it would be in conflict with a mandatory criterion, and whether or not the Census Bureau could accomplish it.

2. The Census Bureau is making every attempt to keep this process as open and flexible as possible. The Census Bureau is in agreement with this comment.

3/4. The Census Bureau, after further review and thought, determined that these are separate criteria. Criterion #8 addresses individual improvements; criterion #9 addresses all as a whole. Desirable criterion #12 was deleted. (See response for desirable criterion #12.)

Conclusion: The Census Bureau made one editorial change to the title, deleting the word "fully;" otherwise, the criterion remains as proposed in the March 25, 1993 **Federal Register** notice.

10. (Previously desirable criterion #12) Provision of opportunities to involve the U.S. Postal Service; state, local, American Indian Tribal, and Alaska Native Village governments; national organizations; and other private, nonprofit, and commercial enterprises.

Description: The involvement of organizations outside the Census Bureau can benefit the planning and conduct of the census by bringing expertise and cooperation into the census-taking process. The Census Bureau will assess the features of each design in terms of their ability to support this external participation.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. This criterion should be mandatory.

2. This criterion is important.

3. It should be part of any design alternative.

4. This criterion should be amended to explicitly include the governments of American Indian tribes along with state and local governments as entities to be involved in the census-taking process.

5. This kind of involvement is vitally important; however, it should not be a criterion, but rather an element of any plan.

Response: 1. The Census Bureau decided not to make this a mandatory criterion. Certain criteria are clearly more critical in assessing the design features of the census than others, and because of their relative importance these criteria become mandatory. In essence they become the "bottom line" for conducting the census. Other criteria are important and the Census Bureau appreciates the comments and acknowledges the concerns about these criteria; but, in the best judgment of the Census Bureau these are not mandatory criteria. In considering whether a criterion should be mandatory or desirable the Census Bureau considered such factors as its importance, whether or not it would be in conflict with a mandatory criterion, and whether or not the Census Bureau could accomplish it.

2/3. The comments are compatible with the criterion.

4. After reviewing the comment, the Census Bureau decided to change the wording of this criterion to explicitly include American Indian Tribal and Alaskan Native Village governments.

5. The purpose of the criteria is to provide guidelines for the Census Bureau to use in assessing the design alternatives. These criteria are not absolute requirements for assessing the designs.

Conclusion: The title of this criterion was changed; otherwise it remains as proposed in the March 25, 1993 **Federal Register** notice.

The Following Desirable Criteria Were Deleted

11. (Previously desirable criterion #10) Methods and procedures are understandable and credible to the public.

Description: The American public and various groups with a stake in the census need to have confidence in the methods and procedures employed in the census process. The features of each design will be assessed to determine compliance with this criterion.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. This criterion is ambiguous and not well thought out.

2. It would be difficult to explain to the American public, and it is a media/public relations problem not a criterion.

3. One comment was in support of this criterion.

4. One comment suggested that it should be mandatory.

5. The Census Bureau should not use sampling for redistricting counts.

Response:

1/2. The Census Bureau agrees with these comments and deleted the criterion.

3/4. The Census Bureau decided to delete this criterion for two reasons.

First, the overall process for planning for the decennial census is an open process in which all stakeholders, including the public, examine and provide input. Through this process, the stakeholders should understand the methods and procedures of the census. Second, in addition it is not possible to measure whether the methods and procedures are understandable and credible to the public. Therefore, this criterion should not be necessary.

5. The Census Bureau acknowledges comments concerning the use of sampling. This issue is fundamentally one of equity in drawing voting district boundaries, and thus the assurance of accuracy of data at small geographic levels is needed. The error at any geographic level is a function of both sampling error and nonsampling error. The Census Bureau will evaluate the total error at various geographic levels. The Census Bureau may consider using an estimation process to produce estimates at the block level. Thus, the possible use of counts or count estimates will be determined after further research. To assess different design alternatives, the Census Bureau needs to be as flexible and open as possible at this stage of the process with respect to the issues of sampling.

Conclusion: The criterion was deleted.

12. (Previously desirable criterion #13) Confidence that related aspects of the Federal statistical structure will be in place to support the census.

Description: Some of the designs under consideration require clarification or redefinition of aspects of the Federal statistical system. The ability of this system to perform in areas such as providing access to administrative records, and providing or using data collected in ways that differ from past experience, must be ensured to support some of the designs. The relevance of the criterion to each design will be assessed, and the necessary changes will be documented.

Summary of Comments: The Census Bureau received the following comments on this criterion:

1. The criterion is too vague. (1)

2. It should be combined with desirable criteria 8, 9, and 12. (1)

3. The Census Bureau must ensure the conduct of the census. (1)

Response: 1. The Census Bureau agrees with the comment that the criterion is confusing and too vague, and deleted the criterion.

2. The Census Bureau determined that criteria 8, 9, and 12 are significantly different. The Census Bureau also decided that criterion 12 should be deleted. See response #1.

3. The Census Bureau agrees with this comment. Conclusion: The criterion was deleted.

General Comments: In addition to the comments discussed above, there were other comments and suggestions regarding the overall approach used. While many of these comments are valuable to consider in the overall planning of the census, they are not applicable in assessing design alternatives.

There also were comments and suggestions regarding additional criteria. We considered these comments and determined that we would maintain the criteria developed for and reflected in the proposed March 25 notice and as revised or deleted in this notice. We determined that since the criteria reflected herein are the most appropriate, we should not add further criteria.

The Census Bureau appreciates the time and thought that the respondents have given to reviewing and providing written comments on these criteria.

Dated: July 14, 1993.

Harry A. Scarr,

Acting Director, Bureau of the Census.

[FR Doc. 93–17150 Filed 7–19–93; 8:45 am]

BILLING CODE 3510–07–P

Foreign-Trade Zones Board

[Docket 29–93]

Foreign-Trade Zone 35—Philadelphia, PA, Application for Subzone, Merck Pharmaceutical Plant, West Point, PA

An application has been submitted to the Foreign-Trade Zones Board (the Board) by the Philadelphia Regional Port Authority, grantee of FTZ 35, requesting special-purpose subzone status for the pharmaceutical manufacturing facility of Merck & Co., Inc. (Merck), in West Point, Pennsylvania, adjacent to the Philadelphia Customs port of entry area. The application was submitted pursuant to the provisions of the Foreign-Trade Zones Act, as amended (19 U.S.C. 81a-81u), and the regulations of the Board (15 CFR part 400). It was formally filed on July 1, 1993.

Merck is one of the world's largest pharmaceutical manufacturers with nearly $9 billion in total sales in 1991. Its primary product lines include: Patented prescription and over-the-counter pharmaceutical products, veterinary pharmaceuticals and agricultural and specialty chemicals. This proposal is part of an overall company cost reduction effort. (Applications for subzone status are also being submitted for seven other Merck facilities.)

Merck's West Point plant (387 acres, 4.2 mil. sq. ft., 83 bldgs.) is located at Sunneytown Pike and Broad Street, in the town of West Point, Montgomery County, Pennsylvania, some 15 miles northwest of Philadelphia. The company is currently expanding the plant (609,000 sq. ft.) to include a biological production facility. The West Point site is Merck's largest U.S. research and manufacturing facility, and also the headquarters for its U.S. Human Health Division.

The facility (5,000 employees) is used to produce a wide range of patented prescription and over-the-counter pharmaceutical products. The finished products include "Pepcid" ulcer treatment; "Noroxin" antibiotic; "Sinemet" medication for the treatment of Parkinson's disease, and "Dolobid" anti-inflammatory analgesic. A veterinary product is also produced at the plant. Company officials are considering the production of osteoporosis, glaucoma, and oncology medications at the West Point facility. Currently, foreign-sourced materials account for, on average, 12 percent of the finished product value and include the following specific chemicals: Diflunisal, famotidine, norfloxacin, and levodopa. The company may purchase products from abroad in the following general product categories: gums, starches, waxes, vegetable extracts, hydroxides, hydrazine and hydroxylamine, chlorides, phosphates, carbonates, hydrocarbons, alcohols, phenols, ethers, epoxides, acetals, aldehydes, ketone function compounds, mono- and polycarboxylic acids, phosphoric esters, amine-, carboxymide, nitrile- and oxygen-function compounds, heterocyclic compounds, sulfonamides, vitamins, hormones, sugars, antibiotics, gelatins, enzymes, color lakes, soaps and detergents, medicaments, and pharmaceutical products.

Zone procedures would exempt Merck from Customs duty payments on foreign materials used in production for export. On domestic sales, the company would be able to choose the duty rates that apply to the finished products (duty-free to 23.5%, most dutiable at 6.3%). The duty rates on foreign-sourced items range from duty-free to 23.5%, with most falling in the 6.9%-13.5% range. The application indicates that the savings from zone procedures will help improve the firm's international competitiveness.

In accordance with the Board's regulations, a member of the FTZ Staff has been designated examiner to

investigate the application and report to the Board.

Public comment is invited from interested parties. Submissions (original and 3 copies) shall be addressed to the Board's Executive Secretary at the address below. The closing period for their receipt is September 20, 1993. Rebuttal comments in response to material submitted during the foregoing period may be submitted during the subsequent 15-day period (October 4, 1993).

A copy of the application and accompanying exhibits will be available for public inspection at each of the following locations:

Office of the District Director, U.S. Department of Commerce, Suite 202, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

Office of the Executive Secretary, Foreign-Trade Zones Board, U.S. Department of Commerce, Room 3716, 14th & Pennsylvania Avenue, NW., Washington, DC 20230.

Dated: July 2, 1993.

John J. Da Ponte, Jr.,

Executive Secretary.

[FR Doc. 93–17178 Filed 7–19–93; 8:45 am]

BILLING CODE 3510-DS-P

International Trade Administration

[A–351–804]

Industrial Nitrocellulose From Brazil; Final Results of Antidumping Duty Administrative Review

AGENCY: International Trade Administration/Import Administration, Department of Commerce.

ACTION: Notice of final results of antidumping duty administrative review.

SUMMARY: On May 10, 1993, the Department of Commerce published the preliminary results of the review of the antidumping duty order on industrial nitrocellulose from Brazil. The review covers one manufacturer/exporter of the merchandise to the United States, and the period July 1, 1991, through June 30, 1992.

We gave interested parties an opportunity to comment on the preliminary results. We received no comments. Based on our analysis, the final results remain unchanged from those presented in the preliminary results

EFFECTIVE DATE: July 20, 1993.

FOR FURTHER INFORMATION CONTACT: Fred Baker or Pam Woods, Office of Antidumping Compliance, International Trade Administration, U.S. Department of Commerce, Washington, DC, 20230; telephone (202) 482–5255.

SUPPLEMENTARY INFORMATION:

Background

On May 10, 1993, the Department of Commerce (the Department) published in the **Federal Register** (58 FR 27537) the preliminary results of its administrative review of the antidumping duty order on industrial nitrocellulose from Brazil (55 FR 28266; July 10, 1990). The Department has now completed the review in accordance with section 751 of the Tariff Act of 1930, as amended (the Act).

Scope of the Review

The product covered by this review is industrial nitrocellulose. Industrial nitrocellulose is a dry, white, amorphous synthetic chemical with a nitrogen content between 10.8 and 12.2 percent, and is produced from the reaction of cellulose with nitric acid. Industrial nitrocellulose is used as a film-former in coatings, lacquers, furniture finishes, and printing inks. The scope of this review does not include explosive grade nitrocellulose, which has a nitrogen content greater than 12.2 percent, and was excluded from the antidumping duty order.

The subject merchandise is currently classifiable under Harmonized Tariff Schedule (HTS) subheading 3912.20.00. HTS numbers are provided for convenience and customs purposes. The written description remains dispositive.

Final Results of Review

We gave interested parties an opportunity to comment on the preliminary results. We received no comments. Therefore, we determine that the final margin is 5.81 percent for Companhia Nitro Quimica Brasileira (Nitro Quimica) for the period July 1, 1991, through June 30, 1992.

The Department will instruct the Customs Service to assess antidumping duties on all appropriate entries. Individual differences between U.S. price and foreign market value may vary from the percentage stated above. The Department will issue appraisement instructions directly to the Customs Service.

Furthermore, the following deposit requirements will be effective upon publication of this notice of final results of review for all shipments of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the publication date, as provided by section 751(a)(1) of the Act: (1) The cash deposit rate for Nitro Quimica will be 5.81 percent; (2) for the previously reviewed or investigated companies not listed above, the cash deposit rate will continue to be the company-specific rate published for the most recent period; (3) if the exporter is not a firm covered in this review, any previous review, or the original less-than-fair-value investigation, but the manufacturer is, the cash deposit rate will be the rate established for the most recent period for the manufacturer of the merchandise. In accord with the Court of International Trade's decisions in *Floral Trade Council* v. *United States*, Slip Op. 93–79, and *Federal-Mogul Corporation and the Torrington Company* v. *United States*, Slip Op. 93–83, the cash deposit rate for all other manufacturers or exporters will be 61.25 percent.

These deposit requirements, when imposed, shall remain in effect until publication of the final results of the next administrative review.

This notice also serves as a final reminder to importers of their responsibility under 19 CFR 353.26 to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

This notice also serves as a reminder to parties subject to administrative protective orders (APOs) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 353.34(d). Timely written notification of the return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This administrative review and notice are in accordance with section 751(a)(1) of the Act (19 U.S.C. 1675(a)(1)) and 19 C.F.R. 353.22.

Dated: July 9, 1993.

Barbara R. Stafford,

Acting Assistant Secretary for Import Administration.

[FR Doc. 93–17179 Filed 7–19–93; 8:45 am]

BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 071493A]

Pacific Fishery Management Council

AGENCY: National Marine Fisheries Service, NOAA, Commerce.

ACTION: Notice of public meeting.

SUMMARY: The Pacific Fishery Management Council (Council) has appointed an Ad Hoc Committee (Committee) representing Pacific whiting fishing and processing interests to develop an allocation proposal for Council consideration. The Committee will hold a 2-day meeting on July 27–28, 1993, to be held in room 440, 2000 S.W. First Avenue, Portland, OR. The meeting will begin on July 27 from 10 a.m. until 5 p.m. and continue on July 28 from 8 a.m. until 1 p.m.

The purpose of this process is to develop an allocation recommendation that will be implemented prior to the opening of the 1994 whiting fishery.

The six-member committee will include one shore-based whiting processor, one factory-trawler, one mothership-processor, one fisher who delivers primarily to shore-based processors, one fisher who delivers primarily to at-sea processors and one at-large groundfish fisher with a history of fishing for both whiting and other west coast groundfish species. The Council has directed the Committee to work towards consensus regarding the framework of an allocation agreement, considering the effects of limited entry, expected whiting abundance, and other important factors. An independent facilitator will help the Committee resolve conflicts and work towards a consensus position. At its September meeting the Council will further refine the proposals and select its preferred alternative. Final Council action is slated for the week of November 15, 1993.

FOR FURTHER INFORMATION CONTACT: Lawrence D. Six, Executive Director, Pacific Fishery Management Council, Metro Center, Suite 420, 2000 S.W. First Avenue, Portland, OR 97201; telephone: (503) 326–6352.

Dated: July 14, 1993.

David S. Crestin,

Acting Director, Office of Fisheries Conservation and Management, National Marine Fisheries Service.

[FR Doc. 93–17118 Filed 7–19–93; 8:45 am]

BILLING CODE 3510-22-F

DEPARTMENT OF DEFENSE

Department of the Air Force

Intent To Prepare an Environmental Impact Statement for Disposal and Reuse of Homestead AFB, FL

The United States Air Force (Air Force) will prepare an environmental impact statement (EIS) to assess the potential environmental impacts of the disposal and reuse of Homestead Air Force Base (AFB), Florida. Under the 1993 Defense Base Closure and Realignment Commission recommendations, the 482d F–16 Fighter Wing (Air Force Reserves), the 301st Rescue Squadron and the North American Air Defense Alert Activity would remain at Homestead AFB. If these recommendations become law, the Air Force will construct aviation-related facilities to support these organizations in cantonment areas at Homestead AFB. The remainder of base property of Homestead will be closed and made available for disposal and reuse. The EIS will address the disposal of the property to public or private entities and the potential impacts of reuse alternatives.

To provide a forum for the community to make oral comments, a scoping meeting is scheduled for August 17, 1993 in the Homestead AFB area. Notice of the time and location of the meeting will be made available to public officials, the community and the local news media outlets at a later date. The purpose of this meeting is to identify the environmental issues and concerns that should be analyzed to: (1) Support base disposal and reuse, (2) solicit comments on the Proposed Action and (3) solicit potential disposal and reuse alternatives for consideration in developing the Homestead EIS. In soliciting disposal and reuse alternatives, the Air Force will consider all reasonable alternatives offered by any Federal, state or local government agency and any federally-sponsored or private entity or individual with an interest in acquiring available property at Homestead AFB. The resulting environmental impacts will be considered in making disposal decisions which will be documented in the Air Force's Final Disposal Plan for Homestead AFB.

To ensure the Air Force will have sufficient time to consider public comments on environmental issues to be included in the EIS, and disposal alternatives to be included in the Final Disposal Plan, comments and reuse proposals should be forwarded to the address listed below at anytime during the environmental impact analysis process.

Please direct written comments or requests for further information concerning the Homestead base disposal and reuse EIS to: Lt Col Gary P. Baumgartel, AFCEE/ESE, 8106 Chennault Road, Brooks AFB, TX 78235–5318, (210) 536–3869.

Patsy J. Conner,

Air Force Federal Register Liaison Officer.

[FR Doc. 93–17095 Filed 7–19–93; 8:45 am]

BILLING CODE 3910-01-M

DEPARTMENT OF ENERGY

Availability of Draft Report to Congress on DOE Advisory Groups for Environmental Restoration and Waste Management

AGENCY: Office of Policy and Program Information, Office of Environmental Restoration and Waste Management, Department of Energy.

ACTION: Notice of availability of draft report and request for comment.

SUMMARY: The Department of Energy has completed a draft report to Congress on Citizens' Advisory Groups for Environmental Restoration and Waste Management. The report is a response to a requirement in section 3132 of the National Defense Authorization Act for Fiscal Year 1993. The Department will solicit public comments on the Draft Report.

DATES: Comments must be submitted by September 20, 1993.

ADDRESSES: Copies of the Draft Report may be obtained by calling or faxing the number below or writing the following address: Department of Energy, EM–4, rm. 5B031, 1000 Independence Ave. SW., Washington, DC 20585. Comments should be submitted to this address.

FOR FURTHER INFORMATION CONTACT: David W. Waldrop, Acting Director, Office of Policy and Program Information, U.S. Department of Energy, Washington, DC 20545, phone: (202) 586–5944, fax: (202) 586–0293.

SUPPLEMENTARY INFORMATION: The Department of Energy has completed a draft report to Congress on citizens' advisory groups for Environmental Restoration and Waste Management. The report contains a comprehensive look at the background, status, and plans for citizens' advisory groups to address DOE's environmental restoration and waste management issues. It also discusses the Department's broader public participation efforts related to environmental restoration and waste management.

The Report consists of six sections. Section I provides a general

introduction; Section II discusses information related to the effectiveness of existing citizens' advisory groups; Section III discusses the desirability of establishing new citizens' advisory groups and current efforts in this regard; Section IV addresses methods of improving public participation in DOE's environmental restoration and waste management activities; Section V highlights comments and recommendations which have been gathered from a variety of sources; and Section VI summarizes the contents of the Draft Report.

The Department of Energy is actively working with States and the Environmental Protection Agency to establish citizens' advisory groups at five "pilot" sites (Fernald, Idaho, Richland, Rocky Flats, and Savannah River). Section III highlights these ongoing efforts. In its final report, which DOE has agreed to submit by May 15, 1994, DOE will include an update on these groups, and an assessment of the effectiveness of the Department's solicitation and use of stakeholder input in its decisionmaking process.

Issued in Washington, DC this 13th day of July, 1993.

Thomas P. Grumbly,

Assistant Secretary for Environmental Restoration and Waste Management.

[FR Doc. 93–17171 Filed 7–19–93; 8:45 am]

BILLING CODE 6450–01–M

Advisory Committee for National Electric and Magnetic Fields Research and Public Information Dissemination Program; Meeting

AGENCY: Department of Energy.

ACTION: Notice of open meeting.

SUMMARY: Pursuant to the provisions of the Federal Advisory Committee Act (Public Law 92–463, 86 Stat. 770), notice is hereby given of a meeting of the National Electric and Magnetic Fields Advisory Committee.

DATES: Thursday, August 5, 1993: 8:30 a.m.–5 p.m. Friday, August 6, 1993: 8:30 a.m.–12:30 p.m.

ADDRESSES: Washington Marriott Hotel, 1221 22nd Street, Washington, DC 20037.

FOR FURTHER INFORMATION CONTACT: Robert Brewer, Director, Utility Systems Division, EE–141, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586–2828.

SUPPLEMENTARY INFORMATION: The National Electric and Magnetic Field Advisory Committee will advise the Department of Energy and the National Institute of Environmental Health Sciences on the design and implementation of a five-year, national electric and magnetic fields research and public information dissemination program. The Secretary of Energy, pursuant to section 2118 of the Energy Policy Act of 1992, Public Law 102–486, has overall responsibility for establishing the national program which includes health effects research, development of technologies to assess and manage exposures, and dissemination of information.

Tentative Agenda

Thursday, August 5, 1993

8:30 a.m.—Welcome and opening remarks
9 a.m.—Presentation on committee member responsibilities and conflict of interest provisions
9:30 a.m.—Status report on implementation of Section 2118 of the Energy Policy Act
10 a.m.—Break
10:15 a.m.—Department of Energy presentation on Draft Strategic Plan for the National Electric and Magnetic Fields Research and Communications Program
11 a.m.—Background and status of Department of Energy and National Institute of Environmental Health Sciences electric and magnetic fields research
12 p.m.—Lunch Break
1 p.m.—Presentation of Department of Energy plans for research and communications activities and Advisory Committee questions
2:15 p.m.—Presentation of National Institute of Environmental Health Sciences plans for health effects research and communication and Advisory Committee questions
3:30 p.m.—Break
3:45 p.m.—Open time for public comments
5 p.m.—Adjourn

Friday, August 6, 1993

8:30 a.m.—Election of Advisory Committee chairperson
9 a.m.—Advisory Committee discussion of Department of Energy and National Institute of Environmental Health Sciences program plans
10:30 a.m.—Break
10:45 a.m.—Advisory Committee planning for future meetings and committee procedures
12:30 p.m.—Adjourn

A final agenda will be available at the meeting.

Public Participation: The meeting is open to the public. Written statements may be filed with the Committee either before or after the meeting. Members of the public who wish to make oral statements pertaining to agenda items should contact Robert Brewer at the address or telephone number listed above. Requests must be received 5 days prior to the meeting and reasonable provision will be made to include the presentation on the agenda. Depending on the number of requests, comments may be limited to five minutes. The Designated Federal Officer is empowered to conduct the meeting in a fashion that will facilitate the orderly conduct of business.

Minutes: The minutes of this meeting will be available for public review and copying at the Freedom of Information Public Reading Room, 1E–190, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585 between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

Issued at Washington, DC on July 14, 1993.

Marcia L. Morris,

Deputy Advisory Committee Management Officer.

[FR Doc. 93–17172 Filed 7–19–93; 8:45 am]

BILLING CODE 6450–01–M

Federal Energy Regulatory Commission

[Docket No. QF93–130–000]

BCH Energy, L.P.; Application for Commission Certification Of Qualifying Status of a Small Power Production Facility

July 14, 1993.

On July 9, 1993, BCH Energy, L.P., c/o VEDCO Energy Corp. of 11757 Katy Freeway, Suite 940, Houston, Texas 77079, submitted for filing an application for certification of a facility as a qualifying small power production facility pursuant to § 292.207(b) of the Commission's Regulations. No determination has been made that the submittal constitutes a complete filing.

According to the applicant, the 15.4 MW refuse derived fuel small power production facility will be located in Bladen County, North Carolina, and will consist of two atmospheric fluid bed combustor-boiler systems and a multi-valve, double extraction/condensing steam turbine generator. The primary energy source will be biomass in the form of processed municipal solid waste. Installation of the facility is expected to commence in the fourth quarter of 1993.

Any persons desiring to be heard or objecting to the granting of qualifying status should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE, Washington, DC 20426, in accordance with rules 211 and 214 of the Commission's Rules of Practice and Procedure. All such motions or protests must be filed by August 19, 1993 and must be served on the applicant. Protests will be considered by the Commission in determining the appropriate action to be taken but will not serve to make

protestants parties to the proceeding. Any persons wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17111 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

Application Filed with the Commission

July 14, 1993.

Take notice that the following hydroelectric application has been filed with the Federal Energy Regulatory Commission and is available for public inspection.

a. *Type of Application:* Amendment of License.

b. *Project No:* 2482–018.

c. *Date Filed:* June 23, 1993.

d. *Applicant:* Niagara Mohawk Power Company.

e. *Name of Project:* Sherman Island Development of the Hudson River Project.

f. *Location:* Hudson River in the Towns of Queensbury/Moreau, Warren/Saratoga Counties, New York.

g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791(a)–825(r).

h. *Applicant Contact:* Mr. Jacob S. Niziol, Niagara Mohawk Power Company, 300 Erie Boulevard West, Syracuse, NY 13202, (315) 428–5556.

i. *FERC Contact:* John Costello, (202) 219–2914.

j. *Comment Date:* August 2, 1993.

k. *Description of Project:* The Niagara Mohawk Power Company, licensee for the Sherman Island Development of the Hudson River Project, requests the Commission's approval to leave in place as a permanent project feature a substantial portion of a cofferdam at the Sherman Island Development. The licensee proposes to leave 6 of the 13 cells in place. The remaining 7 cells would project approximately 7 feet above the normal pond levels. A second alternative being considered requires complete removal of cell Nos. 1 through 5; removal of the upper portions of cell Nos. 6 through 11 to three feet below normal pool levels; and partial removal of cell Nos. 12 and 13 of the extent necessary to not impede water flows.

l. *This notice also consists of the following standard paragraphs: B, C1, and D2.*

B. Comments, Protests, or Motions to Intervene—Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of the Rules of Practice and Procedure, 18 CFR §§ 385.210, .211, .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

C1. Filing and Service of Responsive Documents—Any filings must bear in all capital letters the title "Comments," "Recommendations for Terms and Conditions," "Protest" or "Motion to Intervene," as applicable, and the project number of the particular application to which the filing is in response. Any of these documents must be filed by providing the original and 8 copies to: The Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426. Motion to intervene must also be served upon each representative of the applicant specified in the particular application.

D2. Agency Comments—The Commission invites federal, state, and local agencies to file comments on the described application. (Agencies may obtain a copy of the application directly from the applicant.) If an agency does not file comments within the time specified for filing comments, the Commission will presume that the agency has none. One copy of an agency's comments must also be sent to the applicant's representatives.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17104 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. JD93–12545T Colorado–57]

United States Department of the Interior; NGPA Notice of Determination by Jurisdictional Agency Designating Tight Formation

July 14, 1993.

Take notice that on July 12, 1993, the United States Department of Interior, Bureau of Land Management (BLM) submitted the above-referenced notice of determination pursuant to § 271.703(c)(3) of the Commission's regulations, that portions of the Mesaverde Group Formation in the Ignacio Blanco-Mesaverde Field West in La Plata County, Colorado, qualifies as a tight formation under section 107(b) of the Natural Gas Policy Act of 1978 (NGPA). The recommended area encompasses approximately 3,520 acres, of which approximately 640 acres are administered by the Colorado Oil & Gas Conservation Commission, and consists of all or portions of the following acreage:

Township 32 North, Range 10 West

Section 3: E/2

Township 33 North, Range 10 West

Sections 2, 11, and 27: All

Township 32 North, Range 11 West

Sections 10 and 16: All

The notice of determination also contains BLM's findings that the referenced portions of the Mesaverde Group meet the requirements of the Commission's regulations set forth in 18 CFR part 271.

The application for determination is available for inspection, except for material which is confidential under 18 CFR 275.206, at the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426. Persons objecting to the determination may file a protest, in accordance with 18 CFR 275.203 and 275.204, within 20 days after the date this notice is issued by the Commission.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17107 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. TQ93–7–1–000]

Alabama-Tennessee Natural Gas Co.; Proposed PGA Rate Adjustment

July 14, 1993.

Take notice that on July 9, 1993, Alabama-Tennessee Natural Gas Company (Alabama-Tennessee), tendered for filing as part of its FERC Gas Tariff, First Revised Volume No. 1, the following tariff sheet with a proposed effective date of July 9, 1993:

45th Revised Sheet No. 4

Alabama-Tennessee states that this filing is an out-of-cycle purchased gas adjustment (PGA) filing, the purpose of which is to correlate more accurately Alabama-Tennessee's projected gas costs with the rates of its upstream pipeline supplier, Tennessee Gas Pipeline Company (Tennessee). Alabama-Tennessee states that current spot market prices indicate that Tennessee's Transition Gas Inventory Charge (TGIC) sales commodity rates, which are based on a spot index, will decrease unexpectedly and substantially from those projected by Alabama-Tennessee in its quarterly PGA filing that it submitted on May 28, 1993 in Docket No. TQ93–6–1. In addition to the decrease in Tennessee's TGIC

commodity sales rates, Alabama-Tennessee states that its filing reflects its use of the revised demand cost allocation ratio for computing the rates for jurisdictional sales customers that was agreed upon in the joint settlement filed on December 29, 1992 by Alabama-Tennessee and the Tennessee Valley Municipal Gas Association in Docket Nos. TQ92–5–1 et al., which the Commission approved by Letter Order dated February 24, 1993.

In addition to a waiver of § 154.22 of the Commission's Regulations so that its revised tariff sheet can be made effective as of July 9, 1993, Alabama-Tennessee has requested any other waivers of the Commission's Regulations that may be necessary to permit the tariff sheet to become effective as proposed.

Alabama-Tennessee states that copies of the tariff filing have been mailed to all of its jurisdictional sales and transportation customers and affected state regulatory commissions.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with 18 CFR 385.214 and 385.211 of the Commission's Rules and Regulations. All such motions or protests should be filed on or before July 21, 1993. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection in the public reference room.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17105 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. ER93–540–000]

American Electric Power Service Corp.; Filing

July 14, 1993.

Take notice that on July 7, 1993, American Electric Power Service Corporation, acting as agent for Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company, operating companies of the American Electric Power (AEP) System (collectively "the AEP Companies") submitted for filing as an initial rate schedule, a Revised Transmission Service and Ancillary Control Area Services Tariff, along with certain additional information requested in a letter dated June 4, 1993 by Donald J. Gelinas, Director Division of Applications.

The proposed Tariff provides for the provision of transmission service by the AEP Companies for Eligible Utilities. The basic rate for such transmission service, as revised, is $2980 per megawatt per month. The tariff also makes available Ancillary Control Area Services to Transmission Service users which require such services.

Copies of the filing have been served upon the public service commissions of Indiana, Kentucky, Michigan, Ohio, Tennessee, Virginia and West Virginia, and the parties to Docket No. ER93–540–000. The AEP Companies request an effective date of September 6, 1993 for the proposed tariff.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 18 CFR 385.214). All such motions or protests should be filed on or before July 28, 1993. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17175 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. RP93–153–000]

El Paso Natural Gas Co.; Petition for Limited Waiver

July 14, 1993.

Take notice that on July 9, 1993, El Paso Natural Gas Company (El Paso), filed a petition for limited waiver pursuant to section 502(c) of the Natural Gas Policy Act of 1978 (NGPA) and § 385.1101 of the Commission's Rules of Practice and Procedure. El Paso requests a limited waiver of the reporting requirements contained in part 284 of the Commission's Regulations under the NGPA.

El Paso states that with the implementation of its capacity release program, releasing shippers in El Paso's system may, *inter alia*, release firm transportation capacity from various receipt points to various delivery points, on either a permanent or temporary basis, to acquiring shippers. Since part 284 of the Commission's Regulations clearly mandates the reporting of transportation transactions, El Paso anticipates that the reporting capacity release transactions may very dramatically increase the number of transportation reports required to be filed. Further, the ability to have flexible receipt and delivery points may require El Paso to file a significant number of subsequent reports after implementation.

In view of the administrative burden associated with El Paso's preparation and filing of these reports for capacity release transactions and the Commission's related review, El Paso requests waiver of those sections of part 284, subparts B (§ 284.106) and G (§ 284.223(d)), of the Commission's Regulations that require El Paso to file initial, subsequent, or termination reports within thirty (30) days or upon termination of the service associated with the capacity release program on El Paso's system. El Paso states that the requested waiver would apply to all temporary capacity release transactions. El Paso also requests that the waiver also apply to all transportation transactions that involve solely the addition or deletion of receipt and delivery points. El Paso states it will continue to file the initial, subsequent, or termination reports applicable to permanent transportation transactions.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with 18 CFR 385.214 and 385.211 of the Commission's Rules and Regulations. All such motions or protests should be filed on or before July 21, 1993. Protests will be considered by the Commission in determining the appropriate action to be taken, but will serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection in the public reference room.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17106 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. RP91–229–000]

Panhandle Eastern Pipe Line Co.; Informal Settlement Conference

July 14, 1993.

Take notice that an informal settlement conference will be convened in this proceeding beginning Tuesday, August 3, 1993, at 10 a.m., and continuing through Wednesday, August 4, 1993, at the offices of the Federal Energy Regulatory Commission, 810 First Street, NE., Washington, DC, for the purpose of exploring the possible settlement of the above-referenced docket.

Any party, as defined by 18 CFR 385.102(c), or any participant, as defined in 18 CFR 385.102(b), is invited to attend. Persons wishing to become a party must move to intervene and receive intervenor status pursuant to the Commission's regulations (18 CFR 385.214).

For additional information, contact Carmen Gastilo at (202) 208–2182 or Joanne Leveque at (202) 208–5705.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17108 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

[Docket Nos. RS92–23–008, RP91–203–027 and RP92–132–029 (Consolidated, in part)]

Tennessee Gas Pipeline Co.; Conference

July 14, 1993.

Take notice that on July 27, 1993, beginning at 10 a.m., a conference will be convened in the above-captioned restructuring docket. The conference will be held in Hearing Room Number 1 at the Federal Energy Regulatory Commission, 810 1st St. NE., Washington, DC.

On July 2, 1993, the Commission issued its "Order on Compliance Filing and Granting and Denying Requests for Rehearing" in the above-captioned dockets. That order required the Commission Staff to convene a technical conference within 30 days on the issue of "mandatory balancing agreements." This technical conference is being conducted in response to that directive. Thus, the sole issue which will be addressed at the conference will be Tennessee Gas Pipeline Company's mandatory balancing agreements, as discussed in the July 2, 1993 order.

All interested parties are invited to attend. Attendance at the conference, however, will not confer party status. For additional information, interested parties can call Sharon Dameron at (202) 208–2017.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17110 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. CP93–544–000]

United Gas Pipe Line Co.; Request Under Blanket Authorization

July 14, 1993.

Take notice that on July 9, 1993, United Gas Pipe Line Company (United), P.O. Box 1478, Houston, Texas 77251–1478, filed in Docket No. CP93–544–000 a request pursuant to §§ 157.205 and 157.211 of the Commission's Regulations under the Natural Gas Act (18 CFR 157.205, 157.211) for authorization to construct and operate a two-inch tap and related facilities to enable United to serve Frito Lay, Inc. (Frito Lay) in Fort Bend, Texas, under United's blanket certificate issued in Docket No. CP82–430–000 pursuant to section 7 of the Natural Gas Act, all as more fully set forth in the request that is on file with the Commission and open to public inspection.

United proposes to install and operate a two-inch tap, two-inch meter station, one-inch regulator station and about 200 feet of pipeline to enable United to serve Frito Lay, at a cost of about $50,326.

Any person or the Commission's staff may, within 45 days after issuance of the instant notice by the Commission, file pursuant to Rule 214 of the Commission's Procedural Rules (18 CFR 385.214) a motion to intervene or notice of intervention and pursuant to section 157.205 of the Regulations under the Natural Gas Act (18 CFR 157.205) a protest to the request. If no protest is filed within the time allowed therefor, the proposed activity shall be deemed to be authorized effective the day after the time allowed for filing a protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request shall be treated as an application for authorization pursuant to section 7 of the Natural Gas Act.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17109 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. CP93–541–000]

Young Gas Storage Co., Ltd.; Application

July 14, 1993.

Take notice that on July 8, 1993, Young Gas Storage Company (Young), P.O. Box 1087, Colorado Springs, Colorado 80944, filed in docket No. CP93–541–000 an application pursuant to Sections 7(c) and 7(b) of the Natural Gas Act for authorization to develop, construct and operate an underground storage facility and to provide storage services for others, with pregranted abandonment, and for blanket certificates under subpart F of part 157 and subpart G of part 284 of the Commission's Regulations, all as more fully set forth in the application which is on file with the Commission and open to public inspection.

Young states that it is a Limited Partnership consisting of two general partners and one limited partner. The general partners are Young Gas Storage Company and CIG Gas Storage Company, both Delaware corporations. The limited partner is the City of Colorado Springs, a municipal corporation of the State of Colorado.

Young states that it proposes to develop, construct and operate a natural gas storage field in Morgan County, Colorado. Young proposes to construct approximately 10.8 miles of 20-inch pipeline, approximately 4 miles of 4 to 12 inch gathering lines, 37 injection/withdrawal, observation and saltwater disposal wells, an approximate 6,000 horsepower compressor station and appurtenant facilities.

Young estimates that the facilities would cost $44,355,100. Construction would be financed with approximately $13,307,000 in equity contributions and the remainder with short-term bank loans, it is stated. Young further states that the facilities would be financed utilizing a capitalization of 30% equity and 70% long-term debt. Permanent financing would consist of a combination of first mortgage bonds, debentures and/or bank loans, depending on market conditions at the time the bonds are sold, it is stated.

Young further states that the storage field would have a maximum withdrawal capacity of 200,000 Mcf per day with 5,300,000 Mcf of working gas when the field is fully developed.

Young asserts that the storage service would be provided on an open access basis and conform to Order No. 636. Young further asserts that, even though the City of Colorado Springs and Public Service Company of Colorado have signed letters of intent for the entire

capacity associated with the storage field, an open season would be held for the storage capacity.

Young also request blanket certificate authorization under subpart G of part 284 of the Commission's Regulations to provide the storage service and under subpart F of part 157 to construct and operate facilities. Young further requests, pursuant to section 7(b) of the Natural Gas Act, pregranted abandonment authority upon expiration of the storage contracts, in the event the Commission determines that part 284 pregranted abandonment is inappropriate.

Any person desiring to be heard or to make any protests with reference to said application should on or before August 4, 1993, file with the Federal Energy Regulatory Commission, Washington, DC 20426, a motion to intervene or a protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the Natural Gas Act (18 CFR 157.10). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceeding. Any person wishing to become a party to a proceeding or to participate as a party in any hearing therein must file a motion to intervene in accordance with the Commission's Rules.

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory Commission by sections 7 and 15 of the Natural Gas Act and the Commission's Rules of Practice and Procedure, a hearing will be held without further notice before the Commission or its designee on this application if no motion to intervene is filed within the time required herein, if the Commission on its own review of the matter finds that a grant of the certificate and permission and approval for pregranted abandonment are required by the public convenience and necessity. If a motion for leave to intervene is timely filed, or if the Commission on its own motion believes that a formal hearing is required, further notice of such hearing will be duly given.

Under the procedure herein provided for, unless otherwise advised, it will be unnecessary for Young to appear or be represented at the hearing.

Lois D. Cashell,

Secretary.

[FR Doc. 93–17112 Filed 7–19–93; 8:45 am]

BILLING CODE 6717–01–M

Office of Fossil Energy

[FE Docket No. 93–53–NG]

Sonat Marketing Co.; Blanket Authorization to Import Natural Gas From Canada

AGENCY: Office of Fossil Energy, DOE.

ACTION: Notice of order.

SUMMARY: The Office of Fossil Energy of the Department of Energy gives notice that it has issued an order granting blanket authorization to Sonat Marketing Company to import up to 100 Bcf of natural gas from Canada over a two-year period beginning on the date of the first delivery.

This order is available for inspection and copying in the Office of Fuels Programs Docket Room, room 3F–056, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586–9478. The docket room is open between the hours of 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

Issued in Washington, DC on July 14, 1993.

Clifford P. Tomaszewski,

Director, Office of Natural Gas, Office of Fuels Programs, Office of Fossil Energy.

[FR Doc. 93–17173 Filed 7–19–93; 8:45 am]

BILLING CODE 6450–01–M

ENVIRONMENTAL PROTECTION AGENCY

[FRL–4680–4]

Agency Information Collection Activities Under OMB Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), this notice announces that the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for review and comment. The ICR describes the nature of the information collection and its expected cost and burden.

DATES: Comments must be submitted on or before August 19, 1993.

FOR FURTHER INFORMATION OR TO OBTAIN A COPY OF THIS ICR CONTACT: Sandy Farmer at EPA, (202) 260–2740.

SUPPLEMENTARY INFORMATION:

Office of Water

Title: Certification for Exemption from Monitoring and Notification of Process Changes in Effluent Guidelines (EPA ICR No. 1014.04; OMB Control No. 2040–0033).

Abstract: This ICR is a reinstatement of an expired information collection request for the certification of exemption from monitoring and notification of process changes in effluent guidelines. Under the authority of the Clean Water Act, regulations establishing effluent limitations and standards include provisions for waiving certain monitoring requirements for specific industries. This ICR addresses the activities associated with the preparation and submission of certifications for exemption to EPA, or a delegated authority, by the following industries: Aluminum forming (40 CFR part 467); coil coating (40 CFR part 465); porcelain enameling (40 CFR part 466); pulp and paper (40 CFR parts 430 and 431); pharmaceutical manufacturing (40 CFR part 439); and steam electric generators for certain chlorine discharges (40 CFR part 423). In addition, this ICR addresses a written notification requirement for canmaking facilities (40 CFR 465.03) that must be submitted in the event of certain process changes.

The EPA or delegated authority will use the information from the certification of exemption to make a waiver determination. The EPA or delegated authority will use the notification to ensure industry compliance with effluent regulations.

Burden Statement: Public reporting burden for this collection of information is estimated to average 2 hours per response including time for reviewing instructions, gathering and compiling the data needed, and completing and reviewing the certification of exemption or notification. Public recordkeeping is estimated to average 6 hours per recordkeeper including time to process, store and maintain certifications of exemption and notifications.

Respondents: Reporters consist of owners or operators of facilities, as appropriate. Recordkeepers consist of State or other delegated authorities processing certifications of exemption and notifications.

Estimated Number of Respondents: 316 owners/operators; 39 recordkeepers.

Estimated Number of Responses Per Respondent: 1.

Frequency of Collection: Annually, or on occasion of submission of certification of exemption or notification.

Estimated Total Annual Burden on Respondents: 834 hours.

Send comments regarding the burden estimate, or any other aspect of this collection of information, including suggestions for reducing the burden to: Sandy Farmer, U.S.Environmental Protection Agency, Information Policy

Branch (PM–223Y), 401 M Street, SW., Washington, DC 20460.

and

Matt Mitchell, Office of Management and Budget, Office of Information and Regulatory Affairs, 725 17th Street, NW., Washington, DC 20503.

Dated: July 13, 1993.

Paul Lapsley,

Director, Regulatory Management Division.

[FR Doc. 93–17153 Filed 7–19–93; 8:45 am]

BILLING CODE [illegible]

[FRL–4679–4]

Agency Information Collection Activities Under OMB Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), this notice announces that the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for review and comment. The ICR describes the nature of the information collection and its expected cost and burden; where appropriate, it includes the actual data collection instrument.

DATES: Comments must be submitted on or before August 19, 1993.

FOR FURTHER INFORMATION, OR TO OBTAIN A COPY OF THIS ICR, CONTACT: Ms. Sandy Farmer at EPA, (202) 260–2740.

SUPPLEMENTARY INFORMATION:

Office of Air and Radiation

Title: New Source Performance Standards (NSPS) for the Lime Manufacturing Industry (Subpart HH)–Information Requirements (EPA ICR No. 1167.04; OMB No. 2060–0063). This is a request for renewal of a currently approved information collection.

Abstract: Owners or operators of rotary lime kilns used in manufacturing lime must provide EPA, or the delegated State regulatory authority, with one-time notifications and reports, and must keep records, as required of all facilities subject to the general NSPS requirements. In addition, facilities subject to this subpart using a wet scrubber emission control device must install continuous monitoring devices to monitor and record: (1) The pressure loss of the gas stream through the scrubber, and (2) the scrubbing liquid supply pressure to the control device. Other facilities subject to this subpart must either install and operate continuous monitoring systems (CMS) to monitor the opacity of the gases discharged, or they must have a certified observer monitor visible emissions at least once a day. Owners or operators of affected facilities must notify EPA or the State regulatory authority of the date upon which demonstration of the CMS performance commences. Owners or operators must report all periods of excess emissions semiannually. Owners or operators must also report on monitoring system performance semiannually. The notifications and reports enable EPA or the delegated State regulatory authority to determine that best demonstrated technology is installed and properly operated and maintained and to schedule inspections.

Burden Statement: The public reporting burden for this collection of information is estimated to average 12 hours per response for reporting, and 62.5 hours per recordkeeper annually. This estimate includes the time needed to review instructions, search existing data sources, gather the data needed and review the collection of information.

Respondents: Owners or operators of rotary lime kilns used in manufacturing lime.

Estimated Number of Respondents: 35.

Estimated Number of Responses Per Respondent: 2.

Estimated Total Annual Burden on Respondents: 3,031 hours.

Frequency of Collection: One-time notifications and reports for new facilities; semiannual reporting for existing facilities.

Send comments regarding the burden estimate, or any other aspect of the information collection, including suggestions for reducing the burden, to:

Ms. Sandy Farmer, U.S. Environmental Protection Agency, Information Policy Branch (PM–223Y), 401 M Street, SW., Washington, DC 20460.

and

Mr. Chris Wolz, Office of Management and Budget, Office of Information and Regulatory Affairs, 725 17th Street, NW., Washington, DC 20503.

Dated: July 13, 1993.

Paul Lapsley,

Director, Regulatory Management Division.

[FR Doc. 93–17154 Filed 7–19–93; 8:45 am]

BILLING CODE [illegible]

[FRL–4679–3]

Agency Information Collection Activities Under OMB Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), this notice announces that the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for review and comment. The ICR describes the nature of the information collection and its expected cost and burden.

DATES: Comments must be submitted on or before August 19, 1993.

FOR FURTHER INFORMATION OR TO OBTAIN A COPY OF THIS ICR CONTACT: Sandy Farmer at EPA, (202) 260–2740.

SUPPLEMENTARY INFORMATION:

Office of Water

Title: 404 State Permit Applications and 404 State Program Annual Report (EPA ICR No. 220.05; OMB Control No. 2040–0015).

Abstract: This ICR is an extension of an existing collection for the information collection activities associated with State 404 Permit Applications and State Program Annual Reports. Under section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (Corps) permitting authority may, in certain instances, be transferred to a State upon approval by the EPA. In accordance with 40 CFR part 233, States requesting a transfer of permitting authority must provide EPA with information before, and subsequent to, EPA approval. The EPA will use this information to satisfy specific requirements set forth by section 404 of the Clean Water Act.

This ICR, once approved, will continue to require State governments requesting a transfer of permitting authority to complete an application to the EPA consisting of legal documents, correspondence from State Officials, Memoranda of Agreement with the Secretary of the Army and the EPA Regional Administrator, a complete program description, and appropriate State Statutes and regulations. Following the transfer of authority, States must provide EPA with: (1) Pre-notification by permit holders or reporting pursuant to a general permit; (2) an annual report providing statistics and describing the status of the State permit program; and (3) sufficient information for Federal review of individual applications where Federal review is not waived.

Presently one State has received permitting authority, with an estimated four additional States requesting transfer of authority over the next three years.

Burden Statement: Public reporting burden for this collection of information is estimated to average 16.6 hours per

response including time for reviewing regulations, gathering and compiling the data needed, and completing and reviewing the information.

Respondents: State governments and permit holders, as appropriate.

Estimated Number of Respondents: 1,635.

Estimated Number of Responses Per Respondent: 1.

Frequency of Collection: On occasion of application by State for transfer of permit authority or notification of intent to discharge by a general permit holder; annual submission of State program report.

Estimated Total Annual Burden on Respondents: 27,190 hours.

Send comments regarding the burden estimate, or any other aspect of this collection of information, including suggestions for reducing the burden to:

Sandy Farmer, U.S.Environmental Protection Agency, Information Policy Branch (PM–223Y), 401 M Street, SW., Washington, DC 20460.

and

Matt Mitchell, Office of Management and Budget, Office of Information and Regulatory Affairs, 725 17th Street, NW., Washington, DC 20503.

Dated: July 13, 1993.

Paul Lapsley,

Director, Regulatory Management Division.

[FR Doc. 93–17158 Filed 7–19–93; 8:45 am]

BILLING CODE [illegible]

U.S. ENVIRONMENTAL PROTECTION AGENCY

[AD-FRL–4681–2]

Clean Air Act; Contractor Access to Confidential Business Information

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The EPA has authorized the following contractor for access to information that has been, or will be, submitted to EPA under section 114 of the Clean Air Act (CAA) as amended: Science Applications International Corporation, 206 University Tower, 3101 Petty Road, Durham, North Carolina, contract number 68-D2–0068.

Some of the information may be claimed to be confidential business information (CBI) by the submitter.

DATES: Access to confidential data submitted to EPA will occur no sooner than July 20, 1993.

FOR FURTHER INFORMATION CONTACT: For information contact Deborah M. Elmore, Acting Document Control Officer, Office of Air Quality Planning and Standards (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, (919) 541–5437.

SUPPLEMENTARY INFORMATION: The EPA is issuing this notice to inform all submitters of information under section 114 of the CAA that EPA may provide the above mentioned contractor access to these materials on a need-to-know basis. This contractor will provide technical support to the Office of Air Quality Planning and Standards (OAQPS) in source assessment or with a source category survey which may be used in development of standards for a Federal Air Pollution Control Regulation or Control Techniques Guidelines (CTG).

In accordance with 40 CFR 2.305(b), EPA has determined that this contractor requires access to CBI submitted to EPA under sections 114 and 183 of the CAA in order to perform work satisfactorily under the above noted contract. The contractor's personnel will be given access to information submitted under section 114 of the CAA. Some of the information may be claimed or determined to be CBI. The contractor's personnel will be required to sign nondisclosure agreements and will be briefed on appropriate security procedures before they are permitted access to CBI. All access to CBI under this contract will take place at the contractor's facility.

Clearance for access to CAA CBI under this contract is scheduled to expire on September 30, 1994.

Dated: July 13, 1993.

Robert D. Bremner,

Acting Assistant Administrator for Air and Radiation.

[FR Doc. 93–17156 Filed 7–19–93; 8:45 am]

BILLING CODE [illegible]

ENVIRONMENTAL PROTECTION AGENCY

[FRL–4680–9]

Transfer of Data to Contractor

AGENCY: Environmental Protection Agency.

ACTION: Notice of transfer of data and request for comments.

SUMMARY: The Environmental Protection Agency (EPA) plans to transfer data to its contractor, Radian Corp., and its subcontractors: ICF, Inc.; Versar, Inc.; Science Application International Corp.; Midwest Research Institute; Dynamac Corp.; Westat, Inc.; DPRA, Inc.; Vigyan, Inc.; Energy and Environmental Research Corp.; Kerr and Associates, Inc.; Clayton Environmental Consultants; and Apogee Research, Inc. These data pertain to facility production process and waste management practices, waste characteristics and constituent concentrations, waste volumes, waste management capacity, and the costs of waste management, treatment and disposal. These data have been or will be submitted to EPA under the authority of the Resource Conservation and Recovery Act (RCRA). Some of these data may have been, or may be, claimed as confidential business information.

These firms are providing technical support to EPA in regulatory development for restricting land disposal of hazardous waste; evaluation of waste management practices (including waste minimization techniques); development of technical documents to support rulemaking activities; and development and implementation of technical information transfer programs to support rulemaking and implementation of rules.

DATES: The Transfer of data submitted to EPA will occur no sooner than July 27, 1993.

ADDRESSES: Comments should be sent to Margaret Lee, Document Control Officer, Office of Solid Waste (OS–312), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. Comments should be identified as "Transfer of Confidential Data."

FOR FURTHER INFORMATION CONTACT: Margaret Lee, Document Control Officer, Office of Solid Waste (OS–312), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC (202) 260–3410.

SUPPLEMENTARY INFORMATION:

1. Transfer of Data

The U.S. Environmental Protection Agency is analyzing information in five broad subject areas: (1) Management and methods to treat hazardous waste; (2) capacity to treat, recycle, store, and dispose of hazardous waste; (3) state capacity assurance plans; (4) thermal treatment of hazardous wastes; and (5) waste minimization.

Under EPA Contract No. 68–W3–0001, Radian Corp., and its subcontractors will assist the Waste Management Division of the Office of Solid Waste by providing technical support to EPA in regulatory development for restricting land disposal of hazardous waste; evaluation of waste management practices (including waste minimization techniques); development of technical documents to support rulemaking

activities; and development and implementation of technical information transfer programs to support rulemaking and implementation of rules.

EPA plans to transfer data to its contractor, Radian Corp., and its subcontractors: ICF, Inc.; Versar, Inc.; Science Application International Corp.; Midwest Research Institute; Dynamac Corp.; Westat, Inc.; DPRA, Inc.; Vigyan, Inc.; Energy and Environmental Research Corp.; Kerr and Associates, Inc.; Clayton Environmental Consultants; and Apogee Research, Inc. These data pertain to facility production process and waste management practices; waste characteristics and constituent concentrations, waste volumes, waste management capacity, and the costs of waste management, treatment and disposal.

These data have been or will be submitted to EPA under the authority of the Resource Conservation and Recovery Act (RCRA). Some of the data may have been, or may be, claimed as Confidential Business Information (CBI).

In accordance with 40 CFR 2.305(h) EPA has determined that Radian Corp. and its subcontractors require access to (CBI) submitted to EPA, under the authority of RCRA to perform work satisfactorily under the above-noted contract. EPA is issuing this notice to inform all submitters of CBI that EPA may transfer to these firms, on a need-to-know basis, CBI collected under the authority of RCRA. Upon completing their review of materials submitted, Radian Corp. and its subcontractors will return all such materials to EPA.

Radian Corp., and its subcontractors have been authorized to have access to RCRA CBI under the EPA "Contractors Requirements for the Control and Security of RCRA Confidential Business Information Security Manual." EPA will approve the security plans of the contractors to insure that their facilities comply with security procedures outlined in the security manual prior to RCRA CBI being transferred to the contractors. Personnel from these firms will be required to sign non-disclosure agreements and be briefed on appropriate security procedures before they are permitted access to confidential information.

Dated: July 7, 1993.

Walter W. Kovalizk,

Acting Assistant Administrator.

[FR Doc. 93–17160 Filed 7–6–93; 8:45 am]

BILLING CODE 6560-50-M

[FRL–4681–3]

South Dakota; Adequacy Determination of the State's Municipal Solid Waste Permit Program

AGENCY: Environmental Protection Agency (Region VIII).

ACTION: Notice of tentative determination on application of the State of South Dakota for full program adequacy determination, public comment period, and public hearing.

SUMMARY: Section 4005(c)(1)(B) of the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984, requires States to develop and implement permit programs to ensure that municipal solid waste landfills (MSWLFs) which may receive hazardous household waste or conditionally exempt small quantity generator waste will comply with the revised Federal MSWLF Criteria (40 CFR part 258). RCRA section 4005(c)(1)(C) requires the Environmental Protection Agency (EPA) to determine whether States have adequate "permit" programs for MSWLFs, but does not mandate issuance of a rule for such determinations. EPA has drafted and is in the process of proposing a State/Tribal Implementation Rule (STIR) that will provide procedures by which EPA will approve, or partially approve, State/Tribal landfill permit programs. The Agency intends to approve adequate State/Tribal MSWLF permit programs as applications are submitted. Thus, these approvals are not dependent on final promulgation of the STIR. Prior to promulgation of STIR, adequacy determinations will be made based on the statutory authorities and requirements. In addition, States/Tribes may use the draft STIR as an aid in interpreting these requirements. The Agency believes that early approvals have an important benefit. Approved State/Tribe permit programs provide for interaction between the State/Tribe and the owner/operator regarding site-specific permit conditions. Only those owners/operators located in States/Tribes with approved permit programs can use the site-specific flexibility provided by part 258 to the extent the State/Tribal permit program allows such flexibility. EPA notes that regardless of the approval status of a State/Tribe and the permit status of any facility, the Federal landfill criteria will apply to all permitted and unpermitted MSWLF facilities.

The State of South Dakota applied for a determination of adequacy under section 4005 of RCRA. EPA reviewed South Dakota's MSWLF application and made a tentative determination that all portions of South Dakota's MSWLF permit program are adequate to assure compliance with the revised MSWLF Criteria. The State of South Dakota's application for program adequacy determination is available for public review and comment.

Although RCRA does not require EPA to hold a public hearing on a determination to approve any State/Tribe's MSWLF program, the Region has tentatively scheduled a public hearing on this determination. If a sufficient number of people express interest in participating in a hearing by writing the Region or calling the contact within 30 days of the date of publication of this notice, the Region will hold a hearing on the date given below in the "DATES" section. The Region will notify all persons who submit comments on this notice if it decides to hold the hearing. In addition, anyone who wishes to learn whether the hearing will be held may call the person listed in the "Contacts" section below.

DATES: All comments on the State of South Dakota's application for a determination of adequacy must be received by U.S. EPA by the close of business on September 14, 1993. The public hearing is tentatively scheduled for September 14, 1993, at the Department of Environment and Natural Resources, 523 East Capitol Avenue, Floyd Matthew Training Center, Pierre, South Dakota 57501, at 1 p.m.

ADDRESSES: Copies of the State of South Dakota's application for program adequacy determination are available during normal working days at the following addresses for inspection and copying: from 8 a.m.–5 p.m. at the Department of Environment and Natural Resources, Office of Waste Management, Attn: Dave Templeton, 319 South Coteau, Pierre, South Dakota, 57501; from 8 a.m.–4 p.m. at U.S. EPA, Region VIII Library, 999 18th Street, suite 215, Denver, Colorado 80202–2466. Written comments should be sent to U.S. EPA, Region VIII, 999 18th Street, suite 500, Denver, Colorado, 80202–2466; Attn: Brian Rimar, mail code (8HWM–WM).

FOR FURTHER INFORMATION CONTACT: Brian Rimar (8HWM-WM), Waste Management Branch, U.S. EPA Region VIII, 999 18th Street, suite 500, Denver, Colorado 80202–2466, phone (303) 293–1673.

SUPPLEMENTARY INFORMATION:

A. Background

On October 9, 1991, EPA promulgated revised Criteria for MSWLFs (40 CFR

part 258). Subtitle D of RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), requires States to develop permitting programs to ensure that MSWLFs comply with the Federal Criteria under part 258. Subtitle D also requires in section 4005 that EPA determine the adequacy of State municipal solid waste landfill permit programs to ensure that facilities comply with the revised Federal Criteria. To fulfill this requirement, the Agency has drafted and is in the process of proposing a State/Tribal Implementation Rule (STIR). The rule will specify the requirements which State/Tribal programs must satisfy to be determined adequate.

EPA intends to approve State/Tribal MSWLF permit programs prior to the promulgation of STIR. EPA interprets the requirements for States or Tribes to develop "adequate" programs for permits or other forms of prior approval to impose several minimum requirements. First, each State/Tribe must have enforceable standards for new and existing MSWLFs that are technically comparable to EPA's revised MSWLF criteria. Next, the State/Tribe must have the authority to issue a permit or other notice of prior approval to all new and existing MSWLFs in its jurisdiction. The State/Tribe also must provide for public participation in permit issuance and enforcement as required in section 7004(b) of RCRA. Finally, EPA believes that the State/Tribe must show that it has sufficient compliance monitoring and enforcement authorities to take specific action against any owner or operator that fails to comply with an approved MSWLF program.

EPA Regions will determine whether a State/Tribe has submitted an "adequate" program based on the interpretation outlined above. EPA plans to provide more specific criteria for this evaluation when it proposes the State/Tribal Implementation Rule. EPA expects States/Tribes to meet all of these requirements for all elements of a MSWLF program before it gives full approval to a MSWLF program.

B. State of South Dakota

On April 29, 1993, the State of South Dakota submitted an application for adequacy determination. EPA reviewed South Dakota's application and tentatively determined that all portions of South Dakota's subtitle D program will ensure compliance with the revised Federal Criteria.

Although RCRA does not require EPA to hold a public hearing on a determination to approve any State/Tribe's MSWLF program, the Region has tentatively scheduled a public hearing on this determination. If a sufficient number of people express interest in participating in a hearing by writing the Region or calling the contact given below within 30 days of the date of publication of this notice, the Region will hold a hearing on September 14, 1993, at the Department of Environment and Natural Resources, 523 East Capitol Avenue, Floyd Matthew Training Center, Pierre, South Dakota 57501, at 1 p.m.

On May 7, 1993, the U.S. Court of Appeals for the District of Columbia Circuit vacated the small landfill exemption for ground-water monitoring. Following this decision, and pending EPA regulatory changes, the Federal Minimum Criteria for ground-water monitoring will apply to all MSWLF units, including small and rural landfills. At a meeting planned for September 16, 1993, the State of South Dakota Board of Minerals and Environment is expected to approve changes to Chapter 74:27:19 of the Administrative Rules of South Dakota. The regulations will become effective on October 18, 1993. If the State takes the necessary actions to bring their ground-water monitoring program into full Federal compliance, EPA is proposing full program approval for the State of South Dakota. If the State of South Dakota does not take the above actions, EPA will not approve their ground-water monitoring requirements, and a partial program approval will be issued.

In order for this approval to extend to "existing or former" Indian reservation lands in the State of South Dakota (Cheyenne River, Crow Creek, Flandreau, Lower Brule, Pine Ridge, Rosebud, Sisseton, Standing Rock, and Yankton Indian Reservations), the State Attorney General's demonstration of authority needed to include a demonstration under Federal Indian law that the State courts have jurisdiction to enforce State law against all MSWLF owner/operators whose activities take place in "Indian Country," as defined in 18 U.S.C. 1151. Such a demonstration should include an analysis of the State's jurisdiction to enforce against both Indian and non-Indian owner/operators, located on both trust and fee lands, and should specify what areas, if any, the State believes to have been removed from reservation status and may not qualify as "Indian Country." The Agency believes that such a demonstration has not yet been made by the State of South Dakota.

EPA's future decision with regard to approval of the South Dakota program for "Indian Country," to include Indian reservation lands, will be governed by the Agency's judgement as to whether the State has demonstrated adequate enforcement authority to justify approval, based upon its understanding of the relevant principles of Federal Indian law and sound administrative practice. The State may wish to consider EPA's discussion of the related issue of tribal jurisdiction found in the preamble to the Indian Water Quality Standards Regulation (see 56 FR 64876, December 12, 1991).

Until EPA approves a State or Tribal MSWLF permitting program for any part of "Indian Country" in South Dakota, the requirements of 40 CFR part 258 will, after October 9, 1993, automatically apply to that area. Thereafter, the requirements of CFR part 258 will apply to all owner/operators of MSWLFs located in any part of "Indian Country" that is not covered by an approved State or Tribal MSWLF permitting program.

EPA will consider all public comments on its tentative determination received during the public comment period and during any public hearing held. Issues raised by those comments may be the basis for a determination of inadequacy for the State of South Dakota's program. EPA will make a final decision on whether or not to approve South Dakota's program and will give notice of it in the **Federal Register**. The notice will include a summary of the reasons for the final determination and a response to all major comments.

Section 4005(a) of RCRA provides that citizens may use the citizen suit provisions of section 7002 of RCRA to enforce the Federal MSWLF criteria in 40 CFR part 258 independent of any State/Tribal enforcement program. As EPA explained in the preamble to the final MSWLF criteria, EPA expects that any owner or operator complying with provisions in a State/Tribal program approved by EPA should be considered to be in compliance with the Federal Criteria. See 56 FR 50978, 50995 (October 9, 1991).

Compliance With Executive Order 12291:

The Office of Management and Budget has exempted this notice from the requirements of Section 3 of Executive Order 12291.

Certification Under the Regulatory Flexibility Act

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that this approval will not have a significant economic impact on a substantial number of small entities. It does not impose any new burdens on small

entities. This notice, therefore, does not require a regulatory flexibility analysis.

Authority: This notice is issued under the authority of section 4005 of the Solid Waste Disposal Act as amended; 42 U.S.C. 6946.

Dated: July 13, 1993.

Jack W. McGraw,

Acting Regional Administrator.

[FR Doc. 93–17161 Filed 7–19–93; 8:45 am]

BILLING CODE 6560–50–P

[FRL–4681–1]

Availability of the Final 1993 Guidance for Capacity Assurance Planning

AGENCY: Environmental Protection Agency.

ACTION: Notice.

SUMMARY: Section 104(c)(9) of CERCLA requires states requesting remedial action funds to provide an assurance to EPA of the availability of hazardous waste treatment or disposal capacity to manage the hazardous wastes expected to be generated within their state over twenty years. The final 1993 Guidance for Capacity Assurance Planning presents a national approach that focuses on sufficient capacity to treat and dispose of the projected demand of hazardous wastes. Interested parties should contact the Agency to receive a copy of the Guidance. The information collection activities for the 1993 Capacity Assurance Planning process have been approved by the Office of Management and Budget (OMB) under OMB Control Number 2050–0099.

ADDRESSES: Comments received on the Draft 1993 Guidance for Capacity Assurance Planning, as well as background information for the Final Guidance are at the RCRA Docket Information Center, Office of Solid Waste (OS–305), U.S. Environmental Protection Agency Headquarters (EPA, HQ), 401 M Street, SW., Wash., DC 20460. The docket number is F–92–CAGA-FFFF. The public docket is located at EPA HQ, room M2427 and is available for viewing from 9 a.m. to 4 p.m., Monday through Friday, excluding Federal holidays. Public review of the docket materials is by appointment only. Call (202) 260–9327 for appointments. Copies cost $.15/page.

FOR FURTHER INFORMATION CONTACT: For information on this notice and specific aspects of the guidance, contact Robert Burchard, Office of Solid Waste (OS–321W), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, (703) 308–8450.

Dated: July 13, 1993.

Richard J. Guimond,

Assistant Surgeon General, USPHS, Acting Assistant Administrator.

[FR Doc. 93–17159 Filed 7–19–93; 8:45 am]

BILLING CODE 6560–50–P

[FRL–4680–7]

Proposed Settlement Under Section 122(h) of Comprehensive Environmental Response, Compensation and Liability Act

AGENCY: Environmental Protection Agency.

ACTION: Notice of proposed administrative settlement and opportunity for public comment.

SUMMARY: The U.S. Environmental Protection Agency ("EPA") is proposing to enter into an administrative settlement to resolve claims under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. 9601, *et seq.* Notice is being published to inform the public of the proposed settlement and of the opportunity to comment. The settlement is intended to resolve the liabilities of four (4) parties for past costs incurred by EPA at the Town of Pompey Superfund Site in Pompey, New York.

DATES: Comments must be provided on or before August 19, 1993.

ADDRESSES: Comments should be addressed to the U.S. Environmental Protection Agency, Office of Regional Counsel, New York/Caribbean Superfund Branch, room 437, 26 Federal Plaza, New York, New York 10278 and should refer to: In Re: Town of Pompey Superfund Site, Pompey, New York, U.S. EPA Index No. II CERCLA–122–93–0203.

FOR FURTHER INFORMATION CONTACT: U.S. Environmental Protection Agency, Office of Regional Counsel, New York/Caribbean Superfund Branch, room 437, 26 Federal Plaza, New York, New York 10278, (212) 264–2211, Attention: Sharon E. Kivowitz.

SUPPLEMENTARY INFORMATION: In accordance with section 122(i)(1) of CERCLA, notice is hereby given of a proposed administrative settlement concerning the Town of Pompey Superfund Site (the "Site"), Pompey, New York. Section 122(h) of CERCLA provides EPA with authority to consider, compromise, and settle certain claims for costs incurred by the United States.

The proposed administrative cost recovery agreement would reimburse EPA $246,300.00 for its past response costs at the Site. EPA received the written approval of the U.S. Department of Justice to settle this action.

Administrative Cost Recovery Agreement, Index No. II CERCLA–122–93–0203, which was negotiated pursuant to section 122(h)(1) of CERCLA, provides that the Respondents—Bristol-Myers Squibb Company, Inc., General Electric Company, Pass & Seymour, Inc., and R.E. Dietz, Inc.—generators of hazardous substances sent to the Site, will reimburse EPA for $246,300.00 of EPA's past response costs at the Site. In exchange, and upon payment of the amount agreed upon, EPA agrees that the Respondents shall have resolved any and all civil liability to EPA under section 107(a) of CERCLA, 42 U.S.C. 9607(a), for reimbursement of EPA's past response costs incurred at or in connection with the Site as of January 31, 1993.

A copy of the proposed administrative cost recovery agreement may be obtained in person or by mail from EPA's Region II Office of Regional Counsel, New York/Caribbean Superfund Branch, room 437, 26 Federal Plaza, New York, New York 10278, Attention: Sharon E. Kivowitz.

Dated: July 1, 1993.

Kathleen C. Callahan,

Acting Regional Administrator.

[FR Doc. 93–17157 Filed 7–6–93; 8:45 am]

BILLING CODE 6560–50–M

FEDERAL EMERGENCY MANAGEMENT AGENCY

[FEMA–997–DR]

Illinois; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: The notice amends the notice of a major disaster for the State of Illinois, (FEMA–997–DR), dated July 9, 1993, and related determinations.

EFFECTIVE DATE: July 13, 1993.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: The notice of a major disaster for the State of Illinois dated July 9, 1993, is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by

the President in his declaration of July 9, 1993:

The counties of Madison, Monroe, and St. Clair for Individual Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance.)

Richard W. Krimm,

Deputy Associate Director, State and Local Programs and Support.

[FR Doc. 93–17140 Filed 7–19–93; 8:45 am]

BILLING CODE 6718–02–M

[FEMA–996–DR]

Iowa; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster for the State of Iowa, (FEMA–996–DR), dated July 9, 1993, and related determinations.

EFFECTIVE DATE: July 11, 1993.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Disaster Assistance Program, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: This notice of a major disaster for the State of Iowa dated July 9, 1993, is hereby amended to include the following area among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of July 9, 1993:

Polk County for Individual Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance.)

Richard W. Krimm,

Deputy Associate Director, State and Local Programs and Support.

[FR Doc. 93–17141 Filed 7–6–93; 8:45 am]

BILLING CODE 6718–02–M

[FEMA–996–DR]

Iowa; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster for the State of Iowa, (FEMA–996–DR), dated July 9, 1993, and related determinations.

EFFECTIVE DATE: July 12, 1993.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: The notice of a major disaster for the State of Iowa dated July 9, 1993, is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of July 9, 1993:

Lyon, Osceola, Emmet, Kossuth, Winnebago, Worth, Mitchell, Howard, Winneshiek, Allamakee, Fayette, Chickasaw, Floyd, Cerro Gordo, Hancock, Palo Alto, Clay, O'Brien, Sioux, Plymouth, Cherokee, Buena Vista, Pocahontas, Wright, Franklin, Butler, Bremer, Dubuque, Delaware, Buchanan, Black Hawk, Grundy, Hardin, Hamilton, Webster, Calhoun, Sac, Ida, Woodbury, Monona, Crawford, Carroll, Greene, Boone, Story, Marshall, Tama, Benton, Linn, Jones, Cedar, Iowa, Poweshiek, Jasper, Dallas, Guthrie, Audubon, Shelby, Harrison, Pottawattamie, Cass, Adair, Madison, Warren, Marion, Mahaska, Keokuk, Washington, Henry, Jefferson, Monroe, Lucas, Clarke, Union, Adams, Montgomery, Mills, Fremont, Page, Taylor, Ringgold, Decatur, Wayne, Appanoosa, Davis, Van Buren, and Lee Counties for Individual Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance.)

Richard W. Krimm,

Deputy Associate Director, State and Local Programs and Support.

[FR Doc. 93–17145 Filed 7–19–93; 8:45 am]

BILLING CODE 6718–02–M

[FEMA–993–DR]

Minnesota; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of major disaster for the State of Minnesota, (FEMA–993–DR), dated June 11, 1993, and related determinations.

EFFECTIVE DATE: July 14, 1993.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: The notice of a major disaster for the State of Minnesota, dated June 11, 1993, is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of June 11, 1993:

The counties of Washington and Goodhue for Public Assistance. (Already designated for Individual Assistance.)

The counties of Dakota, Houston, and Ramsey for Individual Assistance and Public Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance.)

Richard W. Krimm,

Deputy Associate Director, State and Local Programs and Support.

[FR Doc. 93–17138 Filed 7–19–93; 8:45 am]

BILLING CODE 6718–02–M

[FEMA–993–DR]

Minnesota; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster for the State of Minnesota, (FEMA–993–DR), dated June 11, 1993, and related determinations.

EFFECTIVE DATE: July 9, 1993.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: This notice of a major disaster for the State of Minnesota dated June 11, 1993, is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of June 11, 1993:

Carver, Chippewa, Faribault, Jackson, LaSueur, Martin, McLeod, and Scott Counties for Public Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance.)

Richard W. Krimm,

Deputy Associate Director, State and Local Programs and Support.

[FR Doc. 93–17139 Filed 7–19–93; 8:45 am]

BILLING CODE 6718–02–M

[FEMA–993–DR]

Minnesota; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster for the State of Minnesota, (FEMA–993–DR), dated June 11, 1993, and related determinations.

EFFECTIVE DATE: July 10, 1993.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Disaster Assistance Programs, Federal

Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: The notice of a major disaster for the State of Minnesota dated June 11, 1993, is hereby amended to include Individual Assistance in the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of June 11, 1993:

The counties of Goodhue and Washington for Individual Assistance.

The counties of Chippewa, Lyon, Le Sueur, Sibley, Nicollet, Brown, Redwood, Carver, Scott, Faribault, Jackson, Martin, McLeod, Renville, Yellow Medicine, Watonwan, Blue Earth, Cottonwood, Lincoln, Murray, Nobles, Pipestone, and Rock for Individual Assistance. (Already designated for Public Assistance.)

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance.)

Richard W. Krimm,

Deputy Associate Director, State and Local Programs and Support.

[FR Doc. 93–17142 Filed 7–19–93; 8:45 am]

BILLING CODE 6718–02–M

[FEMA–995–DR]

Missouri; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster for the State of Missouri, (FEMA–995–DR), dated July 9, 1993, and related determinations.

EFFECTIVE DATE: July 10, 1993.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: The notice of a major disaster for the State of Missouri dated July 9, 1993, is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of July 9, 1993:

The counties of Andrew, Atchison, Barry, Bates, Boone, Buchanan, Callaway, Camden, Carroll, Cape Girardeau, Chariton, Clark, Clay, Cole, Cooper, Daviess, Franklin, Gasconade, Gentry, Harrison, Holt, Howard, Jackson, Jefferson, Lafayette, McDonald, Miller, Moniteau, Montgomery, Newton, Nodaway, Osage, Perry, Platte, Pulaski, Ralls, Ray, Saline, Shelby, St. Louis, St. Louis City, Ste. Genevieve, Stone, Warren, and Worth for Individual Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

Richard W. Krimm,

Deputy Associate Director, State and Local Programs and Support.

[FR Doc. 93–17144 Filed 7–19–93; 8:45 am]

BILLING CODE 6718–02–M

[FEMA–994–DR]

Wisconsin; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster for the State of Wisconsin, (FEMA–994–DR), dated July 2, 1993, and related determinations.

EFFECTIVE DATE: July 8, 1993.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: The notice of a major disaster for the State of Wisconsin dated July 2, 1993, is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of July 2, 1993:

The counties of Buffalo, Chippewa, Crawford, Dane, Green, Grant, Iowa, LaCrosse, Lafayette, Lincoln, Marathon, Pepin, Pierce, Price, Rock, Rusk, St. Croix, and Vernon for Individual Assistance.

The counties of Adams and Juneau for Individual Assistance and Public Assistance.

The countries of Columbia, Fond du Lac, Portage, Waushara, and Wood for Public Assistance. (Already designated for Individual Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance.)

Richard W. Krimm,

Deputy Associate Director, State and Local Programs and Support.

[FR Doc. 93–17143 Filed 7–19–93; 8:45 am]

BILLING CODE 6718–02–M

FEDERAL RESERVE SYSTEM

Norwest Corporation; Formation of, Acquisition by, or Merger of Bank Holding Companies; and Acquisition of Nonbanking Company

The company listed in this notice has applied under § 225.14 of the Board's Regulation Y (12 CFR 225.14) for the Board's approval under section 3 of the Bank Holding Company Act (12 U.S.C. 1842) to become a bank holding company or to acquire voting securities of a bank or bank holding company. The listed company has also applied under § 225.23(a)(2) of Regulation Y (12 CFR 225.23(a)(2)) for the Board's approval under section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.21(a) of Regulation Y (12 CFR 225.21(a)) to acquire or control voting securities or assets of a company engaged in a nonbanking activity that is listed in § 225.25 of Regulation Y as closely related to banking and permissible for bank holding companies, or to engage in such an activity. Unless otherwise noted, these activities will be conducted throughout the United States.

The application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether consummation of the proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party commenting would be aggrieved by approval of the proposal.

Comments regarding the application must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than August 13, 1993.

A. Federal Reserve Bank of Minneapolis (James M. Lyon, Vice President) 250 Marquette Avenue, Minneapolis, Minnesota 55480:

1. Norwest Corporation, Minneapolis, Minnesota; to acquire 100 percent of the voting shares of St. Cloud National Bank & Trust Co., St. Cloud, Minnesota.

In connection with this application, Applicant, through its subsidiary,

Norwest Investment Services, Inc., also proposes to acquire the discount brokerage business of St. Cloud National Bank & Trust Co. pursuant to § 225.25(b)(15) of the Board's Regulation Y.

Board of Governors of the Federal Reserve System, July 14, 1993.

Jennifer J. Johnson,

Associate Secretary of the Board.

[FR Doc. 93-17129 Filed 7-19-93; 8:45 am]

BILLING CODE 6210-01-F

Norwest Corporation, et al.; Formations of; Acquisitions by; and Mergers of Bank Holding Companies

The companies listed in this notice have applied for the Board's approval under section 3 of the Bank Holding Company Act (12 U.S.C. 1842) and § 225.14 of the Board's Regulation Y (12 CFR 225.14) to become a bank holding company or to acquire a bank or bank holding company. The factors that are considered in acting on the applications are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank or to the offices of the Board of Governors. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Unless otherwise noted, comments regarding each of these applications must be received not later than August 13, 1993.

A. Federal Reserve Bank of Minneapolis (James M. Lyon, Vice President) 250 Marquette Avenue, Minneapolis, Minnesota 55480:

1. Norwest Corporation, Minneapolis, Minnesota; to acquire 100 percent of the voting shares of FirstAmerican Bank, National Association, Colorado Springs, Colorado.

B. Federal Reserve Bank of Dallas (W. Arthur Tribble, Vice President) 400 South Akard Street, Dallas, Texas 75222:

1. First Bancorp, Inc., Denton, Texas; to acquire 100 percent of the voting shares of First National Bank of Grapevine, Grapevine, Texas.

2. First Delaware Bancorp, Inc., Dover, Delaware; to acquire 100 percent of the voting shares of First National Bank of Grapevine, Grapevine, Texas.

3. Texas Financial Bancorporation, Inc., Minneapolis, Minnesota; to acquire 100 percent of the voting shares of First National Bank of Grapevine, Grapevine, Texas.

Board of Governors of the Federal Reserve System, July 14, 1993.

Jennifer J. Johnson,

Associate Secretary of the Board.

[FR Doc. 93-17130 Filed 7-19-93; 8:45 am]

BILLING CODE 6210-01-F

George M. Ohlhausen, et al.; Change in Bank Control Notices; Acquisitions of Shares of Banks or Bank Holding Companies

The notificants listed below have applied under the Change in Bank Control Act (12 U.S.C. 1817(j)) and § 225.41 of the Board's Regulation Y (12 CFR 225.41) to acquire a bank or bank holding company. The factors that are considered in acting on the notices are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The notices are available for immediate inspection at the Federal Reserve Bank indicated. Once the notices have been accepted for processing, they will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank indicated for that notice or to the offices of the Board of Governors. Comments must be received not later than August 9, 1993.

A. Federal Reserve Bank of Chicago (James A. Bluemle, Vice President) 230 South LaSalle Street, Chicago, Illinois 60690:

1. George M. Ohlhausen, to acquire 24.9 percent of the voting shares of Success Bancshares, Inc., Lincolnshire, Illinois, and thereby indirectly acquire Success National Bank, Lincolnshire, Illinois.

B. Federal Reserve Bank of St. Louis (Randall C. Sumner, Vice President) 411 Locust Street, St. Louis, Missouri 63166:

1. Martinsburg Bancorp Employee Stock Ownership Plan, Martinsburg, Missouri; to retain 12 percent of the voting shares of Martinsburg Bancorp, Inc., Martinsburg, Missouri, and thereby indirectly acquire Martinsburg Bank, Mexico, Missouri.

Board of Governors of the Federal Reserve System, July 13, 1993.

Jennifer J. Johnson,

Associate Secretary of the Board.

[FR Doc. 93-17131 Filed 7-19-93; 8:45 am]

BILLING CODE 6210-01-F

FEDERAL TRADE COMMISSION

[File No. 882 3199]

Michael S. Levey, et al.; Proposed Consent Agreement with Analysis to Aid Public Comment

AGENCY: Federal Trade Commission.

ACTION: Proposed consent agreement.

SUMMARY: In settlement of alleged violations of Federal law prohibiting unfair acts and practices and unfair methods of competition, this consent agreement, accepted subject to final Commission approval, would prohibit, among other things, the California-based producers of infomercials from misrepresenting infomercials as independent programming rather than paid advertising and from selling any baldness or impotence product not approved by the Food and Drug Administration; and would require the respondents to have competent and reliable scientific evidence to support any representations about the efficacy or safety of any food, drug or device they sell. In addition, the respondents would be required to pay $275,000 for consumer redress.

DATES: Comments must be received on or before September 20, 1993.

ADDRESSES: Comments should be directed to: FTC/Office of the Secretary, room 159, 6th St. and Pa. Ave., NW., Washington, DC 20580.

FOR FURTHER INFORMATION CONTACT: Kathryn Nielsen, Seattle Regional Office, Federal Trade Commission, 2806 Federal Bldg., 915 Second Ave., Seattle, WA 98174. (206) 220–6350.

SUPPLEMENTARY INFORMATION: Pursuant to section 6(f) of the Federal Trade Commission Act, 38 Stat. 721, 15 U.S.C. 46 and 2.34 of the Commission's Rules of Practice (16 CFR 2.34), notice is hereby given that the following consent agreement containing a consent order to cease and desist, having been filed with and accepted, subject to final approval, by the Commission, has been placed on the public record for a period of sixty (60) days. Public comment is invited. Such comments or views will be considered by the Commission and will be available for inspection and copying at its principal office in accordance with § 4.9(b)(6)(ii) of the Commission's Rules of Practice (16 CFR 4.9(b)(6)(ii)).

Agreement Containing Consent Order to Cease and Desist

In the Matter of Michael S. Levey, individually and as an officer of Positive Response Marketing, Inc., and Positive Response Marketing, Inc., a corporation, also trading and doing business as Positive Response Television and Positive Response Advertising. File No. 882 3199.

The Federal Trade Commission having initiated an investigation of certain acts and practices of Positive Response Marketing, Inc., a corporation, also trading and doing business as Positive Response Television and Positive Response Advertising, and Michael S. Levey, an individual, hereinafter sometimes referred to as proposed respondents, and it now appearing that proposed respondents are willing to enter into an agreement containing an order to cease and desist from the acts and practices being investigated,

It is hereby agreed by and between Positive Response Marketing, Inc., a corporation, by its duly authorized officer and its attorney, Michael S. Levey, individually and as an officer of said corporation, and his attorney, and counsel for the Federal Trade Commission that:

1. Proposed respondent Positive Response Marketing, Inc., is a California corporation with its principal office and place of business at 1861 Topanga Canyon Boulevard, Topanga, California 90290. Positive Response also trades and does business as Positive Response Television and Positive Response Advertising.

2. Proposed respondent Michael S. Levey resides at 1975 Topanga Canyon Boulevard, Topanga, California 90290. He is an officer and shareholder of Positive Response Marketing, Inc.

3. Proposed respondents admit all the jurisdictional facts set forth in the draft of complaint here attached.

4. Proposed respondents waive: a. Any further procedural steps;

b. The requirement that the Commission's decision contain a statement of findings of fact and conclusions of law;

c. All rights to seek judicial review or otherwise to challenge or contest the validity of the order entered pursuant to this agreement; and

d. All claims under the Equal Access to Justice Act.

5. This agreement shall not become part of the public record of the proceeding unless and until it is accepted by the Commission. If this agreement is accepted by the Commission, it, together with the draft of complaint contemplated hereby and related material pursuant to § 2.34 of the Commission's Rules, will be placed on the public record for a period of sixty (60) days and information in respect thereto publicly released. The Commission thereafter may either withdraw its acceptance of this agreement and so notify the proposed respondents, in which event it will take such action as it may consider appropriate, or issue and serve its complaint (in such form as the circumstances may require) and decision, in disposition of the proceeding.

6. This agreement is for settlement purposes only and does not constitute an admission by the proposed respondents of facts, other than the jurisdictional facts, or of violations of law as alleged in the draft of complaint here attached.

7. This agreement contemplates that, if it is accepted by the Commission, and if such acceptance is not subsequently withdrawn by the Commission pursuant to the provisions of § 2.34 of the Commission's Rules, the Commission may, without further notice to proposed respondents, (1) issue its complaint corresponding in form and substance with the draft of complaint here attached and its decision containing the following order to cease and desist in disposition of the proceeding and (2) make information public in respect thereto. When so entered, the order to cease and desist shall have same force and effect and may be altered, modified or set aside in the same manner and within the same time provided by statute for other orders. The order shall become final upon service. Delivery by the U.S. Postal Service of the complaint and decision containing the agreed-to order to proposed respondents' addresses as stated in this agreement shall constitute service. Proposed respondents waive any rights they may have to other manner of service. The complaint may be used in construing the terms of the order, and no agreement, understanding, representation or interpretation not contained in the order or the agreement may be used to vary or contradict the terms of the order.

8. Proposed respondents have read the proposed complaint and order contemplated hereby. They understand that once the order has been issued, they will be required to file one or more compliance reports showing that they have fully complied with the order. Proposed respondents further understand that they may be liable for civil penalties in the amount provided by law for each violation of the order after it becomes final.

Order

Definitions

For purposes of this Order: (1) "Competent and reliable scientific evidence" shall mean tests, analyses, research, studies or other evidence based on the expertise of professionals in the relevant area, that has been conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results.

(2) "Material connection" shall mean any relationship between an endorser of any product or service and any individual or other entity advertising, promoting, offering for sale, selling or distributing such product or service, which relationship might materially affect the weight or credibility of the endorsement and which relationship would not reasonably be expected by consumers.

I

It is ordered That respondent Positive Response Marketing, Inc., a corporation, its successors and assigns, and its officers, and respondent Michael S. Levy, individually and as an officer of said corporation, and respondents' agents, representatives and employees, directly or through any partnership, corporation, subsidiary, division or other device, do forthwith cease and desist from selling, broadcasting or otherwise disseminating, or assisting others to sell, broadcast or otherwise disseminate, in part or in whole:

A. The 30-minute television advertisement for the EuroTrym Diet Patch described in the complaint and sometimes know as "The Michael Reagan Show."

B. The 30-minute television advertisement for Foliplexx described in the complaint and sometimes known as "Breakthrough '99."

C. The 30-minute television advertisement for Y–Bron described in the complaint and sometimes known as "Let's Talk" or "Let's Talk with Lyle Waggoner."

II

It is further ordered That responden Positive Response Marketing, Inc., a corporation, its successors and assigns, and its officers, and respondent Michael S. Levey, individually and as an officer of said corporation, and respondent's agents, representatives and employees, directly or through any partnership, corporation, subsidiary, division or other device, do forthwith cease and desist from:

A. Representing, directly or by implication, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of the EuroTrym Diet Patch or any other substantially similar weight control or weight reduction product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, that:

(1) Use of such product prevents feelings of hunger;

(2) Use of such product enables users to lose substantial amounts of weight;

(3) Use of such product enables users to lose weight in a large majority of cases; or

(4) Any competent and reliable test or study establishes that such product promotes weight loss.

For purposes of this Part II a "substantially similar weight control or weight reduction product" shall be defined as any product that is advertised as causing or aiding weight loss through acupressure, acupathy or homeopathy that uses a bandaid or patch to apply a solution to the skin or that purportedly contains as its active ingredient calcarea carbonica.

B. Representing, directly or by implication, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of any other product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, that:

(1) Use of the product prevents or reduces feelings of hunger;

(2) Use of the product enables users to lose substantial amounts of weight;

(3) Use of the product enables users to lose weight in a substantial number of cases; or

(4) Any competent and reliable test or study establishes that use of the product promotes weight loss,

unless the representation is true and, at the time of making the representation, respondents possess and rely upon competent and reliable scientific evidence that substantiates the representation.

C. Failing to disclose clearly and prominently in any advertisement for any weight control or weight reduction product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, that dieting and/or exercise is required in order to lose weight; provided, however, that this disclosure shall not be required if respondents possess and rely upon competent and reliable scientific evidence demonstrating that the product in question is effective without dieting and/or exercise..

III

It is further ordered That respondent Positive Response Marketing, Inc., a corporation, its successors and assigns, and its officers, and respondent Michael S. Levey, individually and as an officer of said corporation, and respondent's agents, representatives and employees, directly or through any partnership, corporation, subsidiary, division or other device, do forthwith cease and desist from:

A. Representing, in any manner, directly or by implication, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of Foliplexx or any other substantially similar product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, that:

(1) Use of such product curtails loss of hair;

(2) Use of such product promotes growth of new hair where hair has already been lost;

(3) Use of such product relieves, cures, prevents or reverses baldness;

(4) Such product is an effective remedy for baldness in a large majority of cases; or

(5) Any competent and reliable test or study establishes that such product relieves, cures, prevents or reverses the advance of baldness.

For purposes of this Part III, a "substantially similar product" shall be defined as any product that is advertised as preventing or reversing baldness or hair loss and that purportedly contains as an ingredient one or more of the following: sulfanated muccopolysaccharides, polysorbates, trichopeptides, takanal, kallikrein, alpha-tocopheral, methyl nicotinate, retinyl palmitate, alantoin, or bovine serum albumin.

B. Representing, in any manner, directly or by implication, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of any other product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, that:

(1) Use of the product prevents or reduces loss of hair;

(2) Use of the product promotes growth of new hair where hair has already been lost;

(3) Use of the product relieves, cures, prevents or reverses baldness;

(4) The product is an effective remedy for baldness in a substantial number of cases; or

(5) Any competent and reliable test or study establishes that the product relieves, cures, prevents or reverses baldness,

unless such representation is true and, at the time of making such representation, respondents possess and rely upon competent and reliable scientific evidence that substantiates the representation.

C. Advertising, packaging, labeling, promoting, offering for sale, selling, or distribution any product that is represented as promoting hair growth or preventing hair loss, unless the product is the subject of an approved new drug application for such purpose under the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. 301 *et seq., provided that* this subpart shall not limit the requirements of Part III.A and B herein.

IV

It is further ordered That respondent Positive Response Marketing, Inc., a corporation, its successors and assigns, and its officers, and respondent Michael S. Levey, individually and as an officer of said corporation, and respondents' agents, representatives and employees, directly or through any partnership, corporation, subsidiary, division or other device, do forthwith cease and desist from:

A. Representing, in any manner, directly or by implication, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of Y-Bron or any other substantially similar product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, that:

(1) Use of such product relieves, cures, prevents or reverses impotence;

(2) Use of such product increases sexual drive, ability, desire or libido;

(3) Such product is an effective remedy for impotence or increases sexual drive, ability, desire or libido in a substantial number of cases; or

(4) Any competent and reliable test or study establishes that such product is an effective remedy for impotence or increases sexual drive, ability, desire or libido.

For purposes of this Part IV, a "substantially similar product" shall be defined as any product that is advertised for sale over-the-counter as a sexual stimulant or as a treatment for impotence and that purportedly contains as its active ingredient yohimbine or any derivative thereof.

B. Representing, in any manner, directly or by implication, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of any other product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, that:

(1) Use of the product relieves, cures, prevents, reverses or is an effective remedy for impotence;

(2) Use of the product increases sexual drive, ability, desire or libido;

(3) The product is an effective remedy for impotence or increases sexual drive, ability, desire or libido at any stated measure of efficacy; or

(4) Any competent and reliable test or study establishes that the product relieves, cures, prevents or reverses impotence or increases sexual drive, ability, desire or libido,

unless such representation is true and, at the time of making such representation, respondents possess and rely upon competent and reliable scientific evidence that substantiates the representation.

C. Advertising, packaging, labeling, promoting, offering for sale, selling, or distributing any product that is represented as increasing sexual desire or improving sexual performance, unless the product is the subject of an approved new drug application for such purpose under the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. 301 *et seq.*, *provided that* this subpart shall not limit the requirements of Part IV.A and B herein.

V

It is further ordered That respondent Positive Response Marketing, Inc., a corporation, its successors and assigns, and its officers, and respondent Michael S. Levey, individually and as an officer of said corporation, and respondents' agents, representatives and employees, directly or through any partnership, corporation, subsidiary, division or other device, do forthwith cease and desist from misrepresenting, in any manner, directly or by implication, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of the Magic Wand or any other immersion-style kitchen mixer of similar size and construction in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, that:

A. The product can crush a whole, fresh pineapple in seconds.

B. Skim milk whipped by the product can be used as mousse-like desserts and cake frosting.

VI

It is further ordered That respondent Positive Response Marketing, Inc., a corporation, its successors and assigns, and its officers, and respondent Michael S. Levey, individually and as an officer of said corporation, and respondents' agents, representatives and employees, directly or through any partnership, corporation, subsidiary, division or other device, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of any product or service in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from:

A. Making any representation, in any manner, directly or by implication, regarding the efficacy or safety of any food, drug or device, as those terms are defined in section 15 of the Federal Trade Commission Act, 15 U.S.C. 55, unless at the time of making such representation respondents possess and rely upon competent and reliable scientific evidence that substantiates the representation; *provided, however,* that any such representation for any food product that is specifically permitted in labeling for such food product by regulations promulgated by the Food and Drug Administration pursuant to the Nutrition Labeling and Education Act of 1990 will be deemed to be substantiated by competent and reliable scientific evidence; *provided further* that any such representation for any over-the-counter drug product that is specifically permitted in labeling for such over-the-counter drug product in Final Regulations establishing conditions under which such product is safe and effective promulgated by the Food and Drug Administration under the Food, Drug and Cosmetic Act, will be deemed to be substantiated by competent and reliable scientific evidence.

B. Making any representation, in any manner, directly or by implication, regarding the performance, benefits, efficacy or safety of any product or service (other than a representation covered under Subpart VI.A above), unless at the time of making such representation respondents possess and rely upon competent and reliable evidence, which when appropriate must be competent and reliable scientific evidence, that substantiates the representation.

VII

It is further ordered That respondent Positive Response Marketing, Inc., a corporation, its successors and assigns, and its officers, and respondent Michael S. Levey, individually and as an officer of said corporation, and respondents' agents, representatives and employees, directly or through any partnership, corporation, subsidiary, division or other device, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of any product or service in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from:

A. Failing to disclose, clearly and prominently, a material connection, where one exists, between an endorser of any product or service and any respondent or respondents.

B. Representing, in any manner, directly or by implication, that any endorsement (as "endorsement" is defined in 16 CFR 255.0(b)) of the product or service represents the typical or ordinary experience of members of the public who use the product or service, unless such is the case.

C. Representing, in any manner, directly or by implication, by words, depictions or symbols, that such product or service has been endorsed by a person, group or organization that is an expert with respect to the endorsement message unless:

(1) The endorser is an existing person, group or organization whose qualifications give it the expertise that the endorser is represented as possessing with respect to the endorsement; and

(2) The endorsement is supported by an objective and valid evaluation or test using procedures generally accepted by experts in that science or profession to yield accurate and reliable results.

VIII

It is further ordered That respondent Positive Response Marketing, Inc., a corporation, its successors and assigns, and its officers, and respondent Michael S. Levey, individually and as an officer of said corporation, and respondents' agents, representatives and employees, directly or through any partnership, corporation, subsidiary, division or other device, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of any product or service in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, in connection with any advertisement depicting a demonstration, experiment or test, do forthwith cease and desist from making any representation, in any manner, directly or by implication, that any demonstration, picture, experiment or test depicted in the advertisement provides, demonstrates or confirms any material quality, feature or merit of any product, when such demonstration, picture, experiment or test does not prove, demonstrate or confirm the representation for any reason, including but not limited to:

A. The undisclosed use or substitution of a material mock-up or prop.

B. The undisclosed material alteration in a material characteristic of the advertised product or any other material prop or device depicted in the advertisement.

C. The use of a visual perspective or camera, film, audio or video technique that, in the context of the advertisement as a whole, materially misrepresents a material characteristic of the advertised product or any other material aspect of the demonstration.

IX

It is further ordered That respondent Positive Response Marketing, Inc., a corporation, its successors and assigns, and its officers, and respondent Michael S. Levey, individually and as an officer of said corporation, and respondents' agents, representatives and employees, directly or through any partnership, corporation, subsidiary, division or other device, in connection with the advertising, packaging, labeling, promotion, offering for sale, sale or distribution of any product or service in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from creating, producing, selling or disseminating:

A. Any advertisement that misrepresents, directly or by implication, that it is not a paid advertisement.

B. Any commercial or other video advertisement fifteen (15) minutes in length or longer or intended to fill a broadcasting or cablecasting time slot of fifteen (15) minutes in length or longer that does not display visually, in a clear and prominent manner and for a length of time sufficient for an ordinary consumer to read, within the first thirty (30) seconds of the commercial or other advertisement and immediately before each presentation of ordering instructions for the product or service, the following disclosure:

"THE PROGRAM YOU ARE WATCHING IS A PAID ADVERTISEMENT FOR [THE PRODUCT OR SERVICE]."

Provided that, for the purposes of this provision, the oral or visual presentation of a telephone number or address for viewers to contact to place an order for the product or service shall be deemed a presentation of ordering instructions so as to require the display of the disclosure provided herein.

X

It is further ordered That respondent Positive Response Marketing, Inc., its successors and assigns, and respondent Michael S. Levey shall pay to the Federal Trade Commission, by cashier's check or certified check made payable to the Federal Trade Commission and delivered to the Regional Director, Federal Trade Commission, 915 Second Avenue, suite 2806, Seattle, Washington 98174, the sum of two hundred seventy-five thousand dollars ($275,000). Respondents shall make this payment on or before the tenth day following the date of entry of this Order. In the event of any default on any obligation to make payment under this section, interest, computed pursuant to 28 U.S.C. 1961(a), shall accrue from the date of default to the date of payment. The funds paid by respondents shall, in the discretion of the Federal Trade Commission, be used by the Commission to provide direct redress to purchasers of the EuroTrym Diet Patch, Foliplexx and/or Y-Bron. If the Federal Trade Commission determines, in its sole discretion, that redress to purchasers of these products is wholly or partially impracticable or is otherwise unwarranted, any funds not so used shall be paid to the United States Treasury. Respondents shall be notified as to how the funds are disbursed, but shall have no right to contest the manner of distribution chosen by the Commission.

XI

It is further ordered That respondent Positive Response Marketing, Inc., shall, for a period of ten (10) years from the date of issuance of this Order, distribute a copy of this Order to each of its operating divisions, to each of respondent's present and future principals and officers, and to every present and future employee, agent and representative who performs discretionary functions in sales or advertising, and shall secure from each such person a signed statement acknowledging receipt of the copy of the Order.

XII

It is further ordered That respondent Michael S. Levey shall, for a period of ten (10) years from the date of issuance this Order, notify the Commission within thirty (30) days of the discontinuance of his present business or employment and of his affiliation with any new business or employment. Each notice of affiliation with any new business or employment shall include the respondent's new business address and telephone number, current home address, and a statement describing the nature of the business or employment and his duties and responsibilities.

XIII

It is further ordered That respondent Positive Response Marketing, Inc., shall notify the Federal Trade Commission at least thirty (30) days prior to any proposed change in the corporation. such as a dissolution, the emergence of a successor corporation, the creation or dissolution of a subsidiary, transfer of the business by assignment to another entity, or any other change in the corporation that may affect compliance obligations under the Order.

XIV

It is further ordered That respondents shall, for five (5) years after the date of the last dissemination of any representation covered by this Order, maintain and upon request make available to the Federal Trade Commission for inspection and copying:

A. All materials that were relied upon in disseminating such representation.

B. All tests, reports, studies, surveys, demonstrations, or other evidence in their possession or control that contradict, qualify or call into question such representation, or the basis relied upon for such representation, including complaints from consumers.

C. All advertisements and promotional materials subject to this Order.

XV

It is further ordered That respondents shall, within sixty (60) days after service of this Order upon them, and at such other times as the Commission may require, file with the Commission a report, in writing, setting forth in detail the manner and form in which they have complied with this Order.

Analysis of Proposed Consent Order to Aid Public Comment

The Federal Trade Commission has accepted, subject to final approval, an agreement to a proposed consent order from Michael S. Levey, an individual, and Positive Response Marketing, Inc., a corporation. The proposed consent order has been placed on the public record of sixty (60) days for receipt of comments by interested persons. Comments received during this period will become part of the public record. After sixty (60) days, the Commission will again review the agreement and the comments received and will decide whether it should withdraw from the agreement and take other appropriate action, or make final the proposed order contained in the agreement.

This matter concerns claims made for a weight-loss product, a baldness product, an impotence product and a kitchen mixer. These claims were made

in program-length commercials produced by Levey and Positive Response Marketing. The weight-loss product, the EuroTrym Diet Patch, was advertised on a commercial called "The Michael Reagan Show." The baldness product, Foliplexx, was advertised on a commercial called "Breakthrough '88." The impotence product, Y-Bron, was advertised on "Let's Talk." The kitchen mixer, the Magic Wand, was advertised on "Amazing Discoveries: Magic Wand."

The Commission's complaint in this matter charges respondents with making deceptive representations regarding the efficacy of the EuroTrym Diet Patch, Foliplexx and Y-Bron. According to the complaint, respondents falsely claimed that (1) use of the EuroTrym Diet Patch prevents feelings of hunger, enables users to lose substantial amounts of weight, and enables users to lose weight in a large majority of cases; (2) use of Foliplexx curtails loss of hair, thus relieving or preventing baldness; use of Foliplexx promotes growth of new hair where hair has already been lost, thus curing or reversing the advance of baldness; and Foliplexx is an effective remedy for baldness in a large percentage of cases; and (3) use of Y-Bron relieves, cures, prevents, or reverses impotence; use of Y-Bron increases sexual drive, ability, desire, or libido; and Y-Bron is an effective remedy for impotence or increases sexual drive, ability, desire, or libido in a substantial percentage of cases. The complaint also alleges that the respondents falsely claimed that they possessed and relied upon a reasonable basis that substantiated these representations.

The complaint also charges the respondents with making deceptive representations regarding the performance of the Magic Wand. According to the complaint, respondents falsely claimed that (1) the Magic Wand can crush a whole, fresh pineapple in seconds and (2) skim milk whipped by the Magic Wand can be used as mousse-like desserts and cake frosting. Further, the complaint charges respondents with using deceptive demonstrations in the program-length commercial for Magic Wand. According to the complaint, respondents falsely claimed that (1) the demonstration of the Magic Wand included an unaltered, whole, fresh pineapple used to make a tropical drink and (2) the demonstration of the Magic Wand included mousse-like desserts and cake frosting made from skim milk whipped by the Magic Wand. The complaint charges that (1) respondents substituted crushed pineapple pulp with a slice of pineapple on top to resemble a whole, fresh pineapple and (2) respondents substituted Cool Whip dairy topping to resemble mousse-like desserts and prepared frosting mix to resemble cake frosting.

In addition, the complaint alleges that respondents falsely represented that the program-length commercials for the four products are independent television programs and not paid commercial advertising.

Further, the complaint alleges that respondents falsely represented that endorsements appearing in the advertisements for the EuroTrym Diet Patch, Foliplexx and Y-Bron reflect the typical or ordinary experiences of consumers, in terms of promoting weight-loss, curing baldness, or relieving impotence, after using the products. In addition, the complaint alleges that respondents falsely represented that these endorsements were obtained from individuals or other entities who, at the time of providing the endorsements, were independent from all of the individuals and entities marketing the products.

The complaint also alleges that in the program-length commercial for the Magic Wand, respondents made deceptive representations regarding an organization called the National Association of Advertising Producers ("NAAP"). The complaint charges respondents with falsely claiming that (1) the NAAP is an existing organization whose qualifications give it the expertise to evaluate commercials for their integrity and excellence and (2) the NAAP is an entity that, at the time of providing its endorsements, was independent from all of the individuals and entities marketing the products.

The consent order contains provisions designed to remedy the advertising violations charged and to prevent the respondents from engaging in similar acts and practices in the future. Part I of the order prohibits respondents from disseminating the 30-minute television advertisements known as "The Michael Reagan Show," "Breakthrough '88," and "Let's Talk."

Parts II, III and IV of the order prohibit respondents from making specified representations regarding the efficacy of the EuroTrym Diet Patch, Foliplexx and Y-Bron or any substantially similar products. Part II also prohibits respondents from making specified weight-loss claims for any product unless the representation is true and respondents rely upon competent and reliable scientific evidence that substantiates the representation. Part III prohibits respondents from making specified baldness-relief claims for any product unless the representation is true and respondents rely upon competent and reliable scientific evidence that substantiates the representation. Part IV prohibits respondents from making specified impotence-relief claims for any product unless the representation is true and respondents rely upon competent and reliable scientific evidence that substantiates the representation. Parts III and IV also prohibit respondents from marketing any product represented as promoting hair growth or improving sexual performance unless the product is the subject of a new drug application approved by the Food and Drug Administration.

Part V of the order prohibits respondents from making specified representations regarding the performance of the Magic Wand or any other similar kitchen mixer.

Part VI of the order prohibits respondents from making representations about the efficacy or safety of any food, drug or device without competent and reliable scientific evidence for the representations. Part VI provides that such representations for food products and over-the-counter drug products will be deemed substantiated, as required by the order, if they are specifically permitted in labeling by regulations promulgated by the Food and Drug Administration. Part VI of the order also prohibits respondents from making any representations about the performance, benefits, efficacy or safety of any product or service without a reasonable basis for the representations.

Part VII of the order prohibits respondents from failing to disclose material connections between endorsers of any product or service and any respondent. Part VII also prohibits respondents from misrepresenting that any endorsement of a product or service represents the typical or ordinary experience of members of the public who use the product or service. Part VII also prohibits respondents from representing that an expert has endorsed a product or service unless (1) the expert endorser is an existing person, group or organization and (2) the expert endorsement is supported by an objective and valid evaluation or test.

Part VIII of the order prohibits respondents from misrepresenting that product demonstrations prove any quality, feature or merit of any product. The order prohibits deceptive demonstration techniques, including but not limited to (1) the undisclosed use or substitution of mock-ups or props, (2) undisclosed alterations in characteristics of products or props, and

(3) use of visual perspectives or techniques that misrepresent product characteristics or aspects of demonstrations.

Part IX of the order prohibits respondents from creating, producing, selling or disseminating any advertisement that misrepresents that it is not a paid advertisement. Part IX also requires respondents to include, in any advertisement 15 minutes or longer, a disclosure indicating that the program is a paid advertisement. The order sets out the specific language for the disclosure and the times it must appear.

The order, in Part X, also requires respondents to pay $275,000 in consumer redress.

Parts XI–XV of the order contain provisions relating to compliance with the order.

The purpose of this analysis is to facilitate public comments on the proposed order. It is not intended to constitute an official interpretation of the agreement and proposed order or to modify in any way their terms.

Donald S. Clark,

Secretary.

[FR Doc. 93–17136 Filed 7–19–93; 8:45 am]

BILLING CODE 6750-01-M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 93N–0239]

Animal Drug Export; MOXIDEC® (Moxidectin) Tablets

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that American Cyanamid Co. has filed an application requesting approval for export to Japan of MOXIDEC® (Moxidectin) Tablets for use as a canine anthelmintic.

ADDRESSES: Relevant information on this application may be directed to the Dockets Management Branch (HFA–305), Food and Drug Administration, rm. 1–23, 12420 Parklawn Dr., Rockville, MD 20857, and to the contact person identified below. Any future inquiries concerning the export of nonfood animal drugs under the Drug Export Amendments Act of 1986 should also be directed to the contact person.

FOR FURTHER INFORMATION CONTACT: Gregory S. Gates, Center for Veterinary Medicine (HFV–110), Food and Drug Administration, 7500 Standish Pl., Rockville, MD 20855, 301–295–8617.

SUPPLEMENTARY INFORMATION: The drug export provisions in section 802 of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 382) provide that FDA may approve applications for the export of drugs that are not currently approved in the United States. Section 802(b)(3)(B) of the act sets forth the requirements that must be met in an application for approval. Section 802(b)(3)(C) of the act requires that the agency review an application within 30 days of its filing to determine whether the requirements of section 802(b)(3)(B) have been satisfied. Section 802(b)(3)(A) of the act requires that the agency publish a notice in the **Federal Register** within 10 days of the filing of an application for export to facilitate public participation in its review of the application. To meet this requirement, the agency is providing notice that American Cyanamid Co., Agricultural Research Division, P.O. Box 400, Princeton, NJ 08543–0400, has filed an application requesting approval for export to Japan of the animal drug MOXIDEC® (Moxidectin) Tablets. The drug is used for prevention of canine heartworm disease.

The application was received and filed in the Center for Veterinary Medicine on May 28, 1993, which shall be considered the filing date for purposes of the act.

Interested persons may submit relevant information on the application to the Dockets Management Branch (address above) in two copies (except that individuals may submit single copies) and identified with the docket number found in brackets in the heading of this document. These submissions may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday.

The agency encourages any person who submits relevant information on the application to do so by July 30, 1993, and to provide an additional copy of the submission directly to the contact person identified above, to facilitate consideration of the information during the 30-day review period.

This notice is issued under the Federal Food, Drug, and Cosmetic Act (sec. 802 (21 U.S.C. 382)) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Center for Veterinary Medicine (21 CFR 5.44).

Dated: July 12, 1993.

Robert C. Livingston,

Director, Office of New Animal Drug Evaluation, Center for Veterinary Medicine.

[FR Doc. 93–17087 Filed 7–19–93; 8:45 am]

BILLING CODE 4160-01-F

[Docket No. 93N–0222]

Guidance Documents on Refusal to File New Drug Applications; Availability

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing the availability of two guidance documents concerning refusals to file new drug applications (NDA's), product license applications (PLA's), and establishment license applications (ELA's). The first guidance document entitled "New Drug Evaluation Guidance Document: Refusal to File" describes the circumstances under which the Center for Drug Evaluation and Research (CDER) will refuse to file NDA's that are facially deficient under the agency's regulations. The second guidance document entitled "Center for Biologics Evaluation and Research (CBER): Refusal to File (RTF) Guidance for Product License Applications (PLA's) and Establishment License Applications (ELA's)" describes the circumstances under which CBER will not accept a license application for filing. These guidance documents are in use in both CDER and CBER and are meant to promote efficiency, timeliness, and consistency in the agency's reviews of NDA's, PLA's, and ELA's.

DATES: Written comments by September 20, 1993.

ADDRESSES: Submit written requests for single copies of the guidance documents to the Office of Small Business, Scientific and Trade Affairs (HF–50), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857. Send two self-addressed adhesive labels to assist that office in processing your requests. Submit written comments on the guidance documents to the Dockets Management Branch (HFA–305), Food and Drug Administration, rm. 1–23, 12420 Parklawn Dr., Rockville, MD 20857. Requests and comments should be identified with the docket number found in brackets in the heading of this document. The guidance documents and comments are available for public examination in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday.

FOR FURTHER INFORMATION CONTACT: Persons needing information on the CDER guidance document should contact: Jane Axelrad, Center for Drug Evaluation and Research (HFD–1), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301–443–2894. Persons needing information on the CBER guidance document should

contact: Michael Beatrice, Center for Biologics Evaluation and Research (HFM–10), Food and Drug Administration, 1401 Rockville Pike, Rockville, MD 20852–1448, 301–496–3556.

SUPPLEMENTARY INFORMATION: FDA believes that the practice of submitting an incomplete or inadequate application and later "repairing" it during an extended review period is inefficient and that it wastes agency resources. Accepting an application that is obviously in need of extensive modification is unfair to those sponsors who have fulfilled their scientific and legal obligations by submitting a complete and fully analyzed application. An incomplete application, submitted prematurely, may delay review of a more complete application from another sponsor. Moreover, an incomplete or inadequate application that needs several cycles of FDA response and sponsor repair excessively consumes FDA and industry resources. The incomplete or inadequate application generates more "start-up time" as well as extra reviews, letters, and meetings.

FDA's regulations describe certain circumstances in which the agency may refuse to file an application (§§ 314.101 and 601.2 (21 CFR 314.101 and 601.2)). Both CDER and CBER have decided that a more detailed explanation of how they are implementing these regulations can improve substantially the efficiency of their review processes. Because of the differences in the CDER and CBER regulations and programs, separate but similar guidance documents have been developed.

CDER's regulations describe in some detail when CDER will refuse to file an application. Section 314.101(d)(3), states: "The application or abbreviated application is incomplete because it does not on its face contain information required under section 505(b) and section 505(j), or section 507 of the act and § 314.50 or § 314.94." CDER's guidance document clarifies the manner in which FDA is applying § 314.101(d)(3). RTF decisions may also be made under other provisions of § 314.101 (i.e., those provisions included in § 314.101(d)(1), (d)(2), (d)(4) through (d)(9), and (e)), but are not specifically addressed in the guidance document.

CBER's regulations list general categories of information required to be submitted in any establishment or product license application. CBER's guidance document describes how CBER makes threshold determinations that the information submitted to support licensure is sufficiently complete to permit a substantive and meaningful review.

Both guidance documents recognize that although RTF is not a final determination and is often an early opportunity for the sponsor to develop a reviewable and potentially approvable application, it is a significant step that delays, at least for a time, full review of the application. Therefore, it is important that RTF be reserved for applications with defects that make the application plainly inadequate or nonreviewable plainly without major repair, or that make review unreasonably difficult. Both guidance documents indicate that in general the deficiencies leading to RTF should be objective and straightforward, not matters of subtle judgment, and should not be quickly reparable.

FDA has concluded that explaining how it applies its regulations in making RTF decisions will substantially improve the quality of NDA, PLA, and ELA submissions and the efficiency of the new drug evaluation and biological product review processes.

To assess the scientific and procedural quality of RTF decisions, CDER recently announced the formation of a committee to review RTF decisions (58 FR 28983, May 18, 1993). The CDER RTF review committee consists of senior CDER and CBER officials, and FDA's Chief Mediator and Ombudsman. The review committee will examine selected CDER RTF's to assess, among other things: The consistency of RTF practices throughout new drug evaluation offices and divisions, the need for additional guidance on application content and format, and the need to modify CDER's RTF policies. CBER will develop a similar oversight mechanism in which CDER will be represented. The presence of CBER representatives on CDER's review committee and the participation of CDER representatives in CBER's oversight process will help to ensure consistent application of RTF principles throughout the Centers.

Interested persons may, on or before September 20, 1993, submit to the Dockets Management Branch (address above) written comments on the guidance documents. Two copies of any comments are to be submitted, except that individuals may submit one copy. Comments are to be identified with the docket number found in the heading of this document. Received comments may be seen in the office above between 9 a.m. and 4 p.m., Monday through Friday.

Dated: July 14, 1993.

Michael R. Taylor,

Deputy Commissioner for Policy.

[FR Doc. 93–17088 Filed 7–16–93; 8:45 am]

BILLING CODE 4160–01–F

[Docket No. 93N–0202]

Guidance on Alternatives to Lot Release for Licensed Biological Products

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is describing its current practices governing lot release for licensed biological products. This document describes the information that should be submitted by manufacturers of licensed biological products and the approach that FDA's Center for Biologics Evaluation and Research (CBER) is using when evaluating alternatives to lot release. CBER's decisions in this regard are based on a continued assurance that the safety, purity, and potency of the product will be maintained. This action is being taken in response to requests for guidance on alternatives to lot release. FDA invites comments on this guidance statement.

DATES: Submit written comments by September 20, 1993.

ADDRESSES: Submit written comments and information to the Dockets Management Branch (HFA–305), Food and Drug Administration, rm. 1–23, 12420 Parklawn Dr., Rockville, MD 20857. Submit product license application amendments requesting alternatives to lot release and sample submission requirements to the director of the application division within the office having primary jurisdiction over the product (e.g., Office of Therapeutics, Office of Vaccines, or Office of Blood), Food and Drug Administration, Center for Biologics Evaluation and Research, 1401 Rockville Pike, Rockville, MD 20852–1448.

FOR FURTHER INFORMATION CONTACT: JoAnn M. Minor, Center for Biologics Evaluation and Research (HFM–635), Food and Drug Administration, 1401 Rockville Pike, Rockville, MD 20852–1448, 301-295-9074.

SUPPLEMENTARY INFORMATION: FDA is describing its current procedure for considering requests from manufacturers regarding alternatives to the submission of samples and of protocols that show results of applicable tests (commonly called "lot release") as set forth in 21 CFR 610.2. This notice

also responds to requests for guidance on what information should be provided when submitting such requests.

Introduction

Under section 351(d) of the Public Health Service Act (42 U.S.C. 262(d)) an establishment may be issued a license to manufacture a biological product only after showing that the establishment and product meet standards designed to ensure that product's continued safety, purity, and potency. Thereafter, a manufacturer of a biological product subject to a license must demonstrate supervision and control of the entire manufacturing process to ensure, among other things, that contaminants are not introduced during production and that there is lot-to-lot consistency in the quality of the licensed product (see 21 CFR part 600 *et seq.*).

Under § 610.2, manufacturers may be required to submit samples from all lots of a licensed biological product together with the protocols showing results of applicable tests when deemed necessary by the Director, CBER. For most biological products, CBER has required the submission of this information both in support of a license application and for continued lot release following product license application approval. In these instances, a manufacturer may not distribute any product until the Director, CBER, issues an official release for the lot.

Guidance and Rationale

Biological products historically have been primarily complex mixtures produced by living organisms. The products have ranged from whole blood for transfusion to allergenic extracts, vaccines, and recombinant therapeutics. Current technology enables industrial scale production of biological products which are more easily characterized using reproducible methodology. In addition, improved analytical techniques are available for characterization of starting materials as well as final products, and efficient methods of purification can reduce levels of process-related impurities to a minimum.

Current technology combined with the experience derived from years of product-specific inspections and testing in CBER laboratories has demonstrated that, for some biological products, alternatives to requiring a CBER release action for every lot provide adequate control to ensure continued safety, purity, and potency (including effectiveness). Therefore, manufacturers meeting the assurances described in this document may submit product license application amendments requesting approval of alternatives to the lot release requirements set forth in their license. Such product license application amendments may be submitted once a manufacturer has documented an acceptable history of lot release and control of the manufacturing facility. The definition of acceptable lot release history will vary according to the product and the complexities of the manufacturing process. CBER considers granting requests for alternatives to lot release only upon demonstration that the alternative approach does not compromise the safety, purity, and potency of the biological product. Specific questions should be addressed to the office with product responsibility prior to submission of an amendment requesting alternatives to lot release.

Among the factors that CBER assesses in determining whether to approve such amendment requests are conformance to licensed manufacturing procedures and the ability of the manufacturer to consistently demonstrate product safety, purity, potency, and stability.

In addition, there should be a history of FDA establishment inspections that have shown compliance with applicable regulations during the period covered. The period considered may vary by product, because the number of lots produced in a given time may vary, as may the extent to which lot release procedures are viewed as important for ongoing assurance of safety and efficacy. CBER recognizes that the need for submission of lot release protocols and/or samples may be greater for some products than others, e.g., products where maintenance of consistent specifications from lot-to-lot is difficult and/or where insufficient correlation is available between measurement of potency and biological activity. The experience reflected in both the number of lots produced and the period of production is important to assess the potential value of the lot release procedures for a particular product or product class.

The following data should be submitted in the form of a product license application amendment covering an adequate period of time and a sufficient number of product lots:

(1) A well-organized table containing a testing summary of all lots manufactured, including lots manufactured in support of licensure. This testing history should include both lots submitted to CBER for release action and lots or batches rejected during in-process, bulk, or final testing at the manufacturing establishment.

(2) A summary of the disposition of the above lots, including the reason a final lot was not submitted to CBER for release or an in-process, or bulk lot or batch was rejected.

(3) A summary listing of all product complaints which include, but are not limited to, presence of labeling errors, decreased potency, contamination, particulate matter, adverse reactions, and defect reports. The actions taken by the manufacturer for each identified production lot or batch should be described.

(4) A listing of any lot(s) which was subject to recall or market corrective action following distribution.

(5) A description of any major process change, including when the process change was implemented and a list of lots manufactured using the new procedure.

After evaluating a license amendment requesting permission to use alternatives to lot release, CBER may determine that routine submission of lot release protocols and samples is not necessary if the submission describes alternatives which provide continued assurance of safety, purity, and potency. CBER may consider whether there is a need for manufacturers to submit samples and protocols at specific intervals (e.g., quarterly) for surveillance purposes. Such lots should be randomly selected in each period, or as instructed by the Director, CBER. Regardless of CBER's determination on submitting lot release protocols and/or samples, the manufacturer is required to maintain sufficient records, retention samples and stability test samples as required by 21 CFR 211.170 and 211.180.

The approach described above is based upon a retrospective analysis of lot release history at CBER, including a comparison of the number of lot failures to the total number of lots tested. Where a major change in manufacturing process or establishment is proposed or has occurred which requires an amendment, CBER may consider reimposing the requirement for submission of lots for release in addition to lots submitted in support of the amendment. Furthermore, if a product surveillance sample is tested and fails a required test or established specification, the product may be subject to recall by the manufacturer and/or the requirement for lot release may be reimposed.

CBER is currently applying the approach set forth in this notice. This notice provides information about, but does not set forth specific requirements for, the submission of a product license amendment requesting permission to use alternatives to lot release. FDA does not intend for this guidance to be comprehensive. All information in this

guidance may not be applicable to all situations.

This notice is intended as guidance to manufacturers of biological products filing product license amendments to request alternatives to lot release. If a manufacturer believes that the factors described in this guidance are inapplicable to a particular product and other factors are appropriate for CBER's consideration, the manufacturer may wish to discuss the matter further with the agency to prevent expenditure of money and effort on activities that later may be determined to be unacceptable by FDA.

This guidance does not bind the agency and does not create or confer any rights, privileges, or benefits for or upon any person, manufacturer, or organization.

Interested persons may, on or before September 20, 1993 submit to the Dockets Management Branch (address above) written comments and information on this guidance statement. Two copies of any comments are to be submitted, except that individuals may submit one copy. Comments and information should be identified with the docket number found in brackets in the heading of this document. The notice and received information and comments are available for public examination in the office above between 9 a.m. and 4 p.m., Monday through Friday.

FDA will consider any comments received in determining whether amendments to the guidance statement are warranted. As warranted, FDA will announce the availability of any revised guidance statement in the **Federal Register**.

Dated: July 14, 1993.

Michael R. Taylor,

Deputy Commissioner for Policy.

[FR Doc. 93–17133 Filed 7–19–93; 8:45 am]

BILLING CODE 4160-01-F

Advisory Committees; Notice of Meetings

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: This notice announces forthcoming meetings of public advisory committees of the Food and Drug Administration (FDA). This notice also summarizes the procedures for the meetings and methods by which interested persons may participate in open public hearings before FDA's advisory committees.

MEETINGS: The following advisory committee meetings are announced:

Circulatory System Devices Panel of the Medical Devices Advisory Committee

Date, time, and place. August 2 and 3, 1993, 8:30 a.m., Bethesda Ramada Inn, Embassy Ballroom, 8400 Wisconsin Ave., Bethesda, MD.

Type of meeting and contact person. Open public hearing, August 2, 1993, 8:30 a.m. to 9:30 a.m., unless public participation does not last that long; open committee discussion, 9:30 a.m. to 3 p.m.; closed presentation of data, 3 p.m. to 4 p.m.; open public hearing, August 3, 1993, 8:30 a.m. to 9:30 a.m., unless public participation does not last that long; open committee discussion, 9:30 a.m. to 3 p.m.; closed presentation of data, 3 p.m. to 4 p.m.; Wolf Sapirstein or Ramiah Subramanian, Center for Devices and Radiological Health (HFZ–450), Food and Drug Administration, 1390 Piccard Dr., Rockville, MD 20850, 301–427–1205.

General function of the committee. The committee reviews and evaluates data on the safety and effectiveness of marketed and investigational devices and makes recommendations for their regulation.

Agenda—Open public hearing. Interested persons may present data, information, or views, orally or in writing, on issues pending before the committee. Those desiring to make formal presentations should notify the contact person before July 23, 1993, and submit a brief statement of the general nature of the evidence or arguments they wish to present, the names and addresses of proposed participants, and an indication of the approximate time required to make their comments.

Open committee discussion. The committee will discuss one or more premarket approval applications for implantable cardioverter defibrillator devices and an interventional cardiology device.

Closed presentation of data. The committee may discuss trade secret and/or confidential commercial information regarding the devices listed above. This portion of the meeting will be closed to permit discussion of this information (5 U.S.C. 552b(c)(4)).

Dental Products Panel of the Medical Devices Advisory Committee

Date, time, and place. August 2 and 3, 1993, 8 a.m., Parklawn Bldg., conference rms. D and E, 5600 Fishers Lane, Rockville, MD.

Type of meeting and contact person. Open committee discussion, August 2, 1993, 8 a.m. to 4 p.m.; closed committee deliberations, 4 p.m. to 5 p.m.; open public hearing, August 3, 1993, 8 a.m. to 4 p.m., unless public participation does not last that long; closed committee deliberations, 4 p.m. to 4:30 p.m.; Jeanne L. Rippere, Center for Drug Evaluation and Research (HFD–813), Food and Drug Administration, 7520 Standish Pl., Rockville, MD 20855, 301–295–8186.

General function of the committee. The committee reviews and evaluates data on the safety and effectiveness of marketed and investigational devices and makes recommendations for their regulation.

Agenda—Open public hearing. Interested persons may present data, information, or views, orally or in writing, on the general issues pending before the committee. Those desiring to make formal presentations should notify the contact person before July 28, 1993, and submit a brief statement of the general nature of the evidence or arguments they wish to present, the names and addresses of proposed participants, and an indication of the approximate time required to make their comments.

Open committee discussion. The committee will hear and discuss orientation presentations on the role of the committee and its plaque subcommittee in the review and evaluation of safety and effectiveness data for over-the-counter (OTC) drug products bearing antiplaque and antiplaque-related claims, such as "for the reduction or prevention of plaque, tartar, calculus, film, sticky deposits, bacterial build-up, and gingivitis." These data were submitted in response to a call-for-data notice published in the **Federal Register** of September 19, 1990 (55 FR 38560). In addition, the committee will hear short presentations on issues that will be discussed at length at the next Panel meeting, tentatively scheduled for December 1 through 3, 1993. These issues include the regulation of dental amalgam and dental product labeling requirements.

Closed committee deliberations. The committee may discuss trade secret and/or confidential commercial information related to OTC drug products for plaque reduction and/or prevention. This portion of the meeting will be closed to permit discussion of this information (5 U.S.C. 552b(c)(4)).

Drug Abuse Advisory Committee

Date, time, and place. August 25, 1993, 9 a.m., Holiday Inn, Plaza Ballroom, 8777 Georgia Ave., Silver Spring, MD.

Type of meeting and contact person. Open public hearing, 9 a.m. to 10 a.m., unless public participation does not last

that long; open committee discussion, 10 a.m. to 12 m.; closed committee deliberations, 12 m. to 5 p.m.; Isaac F. Roubein, Center for Drug Evaluation and Research (HFD–7), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301–443-3741.

General function of the committee. The committee advises on the scientific and medical evaluation of information gathered by the Department of Health and Human Services and the Department of Justice on the safety, efficacy, and abuse potential of drugs and recommends actions to be taken on the marketing, investigation, and control of such drugs.

Agenda—Open public hearing. Interested persons may present data, information, or views, orally or in writing, on issues pending before the committee. Those desiring to make formal presentations should notify the contact person before August 13, 1993, and submit a brief statement of the general nature of the evidence or arguments they wish to present, the names and addresses of proposed participants, and an indication of the approximate time required to make their comments.

Open committee discussion. The committee will discuss: (1) The information brought forward to the agency by the National Institute on Drug Abuse about the potential toxicity and benefits of Ibogaine®, (an alkaloid that may have therapeutic effects in cases of drug addiction), and (2) about offering advice on how to safely bring this drug into initial studies in man.

Closed committee deliberations. The committee will review trade secret and/or confidential commercial information relevant to new drug applications. This portion of the meeting will be closed to permit discussion of this information (5 U.S.C. 552b(c)(4)).

FDA regrets that it is publishing this notice in the **Federal Register** less than 15 days prior to the meeting of the Circulatory System Devices Panel of the Medical Devices Advisory Committee because of time contraints due in part to the holiday.

Each public advisory committee meeting listed above may have as many as four separable portions: (1) An open public hearing, (2) an open committee discussion, (3) a closed presentation of data, and (4) a closed committee deliberation. Every advisory committee meeting shall have an open public hearing portion. Whether or not it also includes any of the other three portions will depend upon the specific meeting involved. The dates and times reserved for the separate portions of each committee meeting are listed above.

The open public hearing portion of each meeting shall be at least 1 hour long unless public participation does not last that long. It is emphasized, however, that the 1 hour time limit for an open public hearing represents a minimum rather than a maximum time for public participation, and an open public hearing may last for whatever longer period the committee chairperson determines will facilitate the committee's work.

Public hearings are subject to FDA's guideline (subpart C of 21 CFR part 10) concerning the policy and procedures for electronic media coverage of FDA's public administrative proceedings, including hearings before public advisory committees under 21 CFR part 14. Under 21 CFR 10.205, representatives of the electronic media may be permitted, subject to certain limitations, to videotape, film, or otherwise record FDA's public administrative proceedings, including presentations by participants.

Meetings of advisory committees shall be conducted, insofar as is practical, in accordance with the agenda published in this **Federal Register** notice. Changes in the agenda will be announced at the beginning of the open portion of a meeting.

Any interested person who wishes to be assured of the right to make an oral presentation at the open public hearing portion of a meeting shall inform the contact person listed above, either orally or in writing, prior to the meeting. Any person attending the hearing who does not in advance of the meeting request an opportunity to speak will be allowed to make an oral presentation at the hearing's conclusion, if time permits, at the chairperson's discretion.

The agenda, the questions to be addressed by the committee, and a current list of committee members will be available at the meeting location on the day of the meeting.

Transcripts of the open portion of the meeting may be requested in writing from the Freedom of Information Office (HFI–35), Food and Drug Administration, rm. 12A–16, 5600 Fishers Lane, Rockville, MD 20857, approximately 15 working days after the meeting, at a cost of 10 cents per page. The transcript may be viewed at the Dockets Management Branch (HFA–305), Food and Drug Administration, rm. 1–23, 12420 Parklawn Dr., Rockville, MD 20857, approximately 15 working days after the meeting, between the hours of 9 a.m. and 4 p.m., Monday through Friday. Summary minutes of the open portion of the meeting may be requested in writing from the Freedom of Information Office (address above) beginning approximately 90 days after the meeting.

The Commissioner, with the concurrence of the Chief Counsel, has determined for the reasons stated that those portions of the advisory committee meetings so designated in this notice shall be closed. The Federal Advisory Committee Act (FACA) (5 U.S.C. app. 2, 10(d)), permits such closed advisory committee meetings in certain circumstances. Those portions of a meeting designated as closed, however, shall be closed for the shortest possible time, consistent with the intent of the cited statutes.

The FACA, as amended, provides that a portion of a meeting may be closed where the matter for discussion involves a trade secret; commercial or financial information that is privileged or confidential; information of a personal nature, disclosure of which would be a clearly unwarranted invasion of personal privacy; investigatory files compiled for law enforcement purposes; information the premature disclosure of which would be likely to significantly frustrate implementation of a proposed agency action; and information in certain other instances not generally relevant to FDA matters.

Examples of portions of FDA advisory committee meetings that ordinarily may be closed, where necessary and in accordance with FACA criteria, include the review, discussion, and evaluation of drafts of regulations or guidelines or similar preexisting internal agency documents, but only if their premature disclosure is likely to significantly frustrate implementation of proposed agency action; review of trade secrets and confidential commercial or financial information submitted to the agency; consideration of matters involving investigatory files compiled for law enforcement purposes; and review of matters, such as personnel records or individual patient records, where disclosure would constitute a clearly unwarranted invasion of personal privacy.

Examples of portions of FDA advisory committee meetings that ordinarily shall not be closed include the review, discussion, and evaluation of general preclinical and clinical test protocols and procedures for a class of drugs or devices; consideration of labeling requirements for a class of marketed drugs or devices; review of data and information on specific investigational or marketed drugs and devices that have previously been made public; presentation of any other data or information that is not exempt from public disclosure pursuant to the FACA, as amended; and, notably deliberative

session to formulate advice and recommendations to the agency on matters that do not independently justify closing.

This notice is issued under section 10(a)(1) and (2) of the Federal Advisory Committee Act (5 U.S.C. app. 2), and FDA's regulations (21 CFR part 14) on advisory committees.

Dated: July 14, 1993.

Jane E. Henney,

Deputy Commissioner for Operations.

[FR Doc. 93–17202 Filed 7–15–93; 4:08 pm]

BILLING CODE 4160-01-F

Health Resources and Services Administration

Program Announcement for HIV/AIDS Dental Reimbursement Program for Fiscal Year 1993

The Health Resources and Services Administration (HRSA), announces its intent to accept proposals for reimbursement of eligible dental schools and postdoctoral dental education programs for the documented, uncompensated costs of oral health care which has been provided to HIV-infected persons during the prior year. This program is authorized under section 776(b) of the Public Health Service Act (the Act), as amended by the Health Professions Extension Amendments of 1992, Public Law 102–408, dated October 13, 1992.

Approximately $5.1 million will be available in FY 1993 for competing awards under this program. An estimated 125 awards will be made. Previous funding experience with this program resulted in awards ranging from $808 to $637,000.

This authority requires the Secretary of Health and Human Services to distribute the available funds among all eligible applicants taking into account the number of patients with HIV disease who have been served and the unreimbursed oral health care costs incurred by each institution as compared with the total number of patients with HIV disease served and costs incurred by all eligible applicants.

The Secretary will use the following formula to allocate funds among eligible applicants:

$$N = A\left[.8\left(\frac{IU}{TU}\right)+.2\left(\frac{IP}{TP}\right)\right]$$

In this formula, "N" represents the amount to be awarded to a given applicant. "A" represents the amount of funds appropriated to implement section 776(b). "IU" represents the applicant institution's unreimbursed costs. "TU" represents the total unreimbursed costs for all applicants. "IP" represents the number of HIV-infected patients served by the applicant institution. "TP" represents the total number of HIV-infected patients served by all applicants.

Each award will be calculated by multiplying the total appropriation amount times the sum of the weighted proportions of each eligible applicant's unreimbursed costs and number of HIV-infected patients served to the total unreimbursed costs claimed and number of patients served by all eligible applicants, respectively.

The unreimbursed costs portion of this formula is weighted more heavily than the number of patients with HIV disease served, reflecting the thrust of this program to alleviate losses incurred in providing such care.

If patients with HIV disease were served but there are no documented, uncompensated costs, no reimbursement will be awarded. Documentation of submitted information should be maintained since, as with all Federal awards, it is subject to audit.

Purpose

The purpose of this program is to assist schools and academic health science centers in meeting the costs of providing oral health care to patients with HIV disease.

National Health Objectives for the Year 2000

The Public Health Service (PHS) is committed to achieving the health promotion and disease prevention objectives of Healthy People 2000, a PHS-led national activity for setting priority areas. This HIV/AIDS Dental Reimbursement Program is related to priority area 18, HIV Infection. Potential applicants may obtain a copy of Healthy People 2000 (Full Report; Stock No. 017–001–00474–0) or Healthy People 2000 (Summary Report; Stock No. 017–001–00473–1) through the Superintendent of Documents, Government Printing Office, Washington, DC 20402–9325 (Telephone 202–783–3238.)

Eligibility

The Secretary is authorized to make this assistance available to public or private nonprofit schools of dentistry and to accredited post-graduate dental training programs that have documented the uncompensated costs of oral health care provided to HIV-infected persons. The Secretary shall not make an award under this authority if doing so would result in any reduction in State funding allotted for such purposes.

Statutory Requirements

Each eligible dental school or program may annually submit a proposal documenting the unreimbursed costs of oral health care provided to HIV-infected patients by that school or hospital during the prior year.

The following definitions and evaluation criteria were established after public comment in FY 1991 dated July 18, 1991 (56 FR 33037) and will be used in FY 1993.

Definitions

"Eligible applicant" means a dental school or any post-doctoral dental education program which has documented uncompensated costs for the provision of oral health care to HIV-infected persons and which has been accredited by the Commission on Dental Accreditation.

"Fee charged" means the institution's normal charge for a particular service before any discount or sliding fee schedule is applied.

"HIV/AIDS patient" means a person who is infected with the human immunodeficiency virus—those patients who self identify as being HIV-infected or who present with signs, symptoms, or medical historical data identified with HIV Infection—e.g. candidiasis (oral, esophageal, pulmonary, etc.), progressive generalized lymphadenopathy, oral hairy leukoplakia, Pneumocystis carinii pneumonia (PCP), recurrent pneumonia, Kaposi's sarcoma (oral and/or disseminated), Pulmonary tuberculosis, invasive cervical cancer and/or other HIV associated fungal, viral, bacterial, and/or neoplastic processes as delineated by the Centers for Disease Control (CDC) in the 1993 revised classification system for HIV infection.

"HIV disease" means infection with the human immunodeficiency virus, and includes any condition arising from such infection.

"Human immunodeficiency virus" means the etiologic agent for acquired immune deficiency syndrome.

"Post-doctoral dental education program" means a program sponsored by a school of dentistry, hospital, or a public or private institution that offers post-doctoral training in the specialties of dentistry, advanced education in general dentistry, or a dental general practice residency; and has been accredited by the Commission on Dental Accreditation.

"Prior year" is the year for which uncompensated costs will be reimbursed, which for this FY 1993

cycle, is defined as July 1, 1991 to June 30, 1992.

"Scope of services" means those oral health and support services (i.e., laboratory services) which have been provided to the patient (and for which a fee was charged).

"Unreimbursed oral health care costs" means the balance remaining after subtracting the total income received from the patients with HIV disease served and/or third party payors or Medicaid, from the total of normal fees charged by the applicant institution for those patients. It refers to the cost of those actual uncompensated oral health services provided through the institution to an HIV-infected person.

Established Evaluation Criteria

The review of proposals will take into consideration compliance with the requirements of section 776(b). In particular, evaluation of proposals will consider:

1. The total number of HIV-infected patients treated through the dental school/program and the percent range of uncompensated costs of their care;
2. Total fees charged for oral health services provided to the HIV-infected patients;
3. The total unreimbursed costs for oral health care provided to HIV-infected patients;
4. The average number of visits for all HIV-infected patients and the average number of visits for all non-HIV infected patients;
5. The percentage of oral health service procedures provided to all HIV-infected persons using the following categories: diagnostic, oral pathology, preventive, restorative, periodontics, prosthodontics, oral surgery, endodontics, and other adjunctive services and a comparative percentage of oral health service procedures for the same number of non-HIV-infected patients;
6 Evidence of efforts to establish working relationships with HIV planning councils and care consortia authorized under Titles I & II of the Ryan White CARE Act (Pub. L. 101–381); and
7. Indication of ongoing provision of oral health care services to persons with HIV infection.

Requests for (1) additional information regarding programmatic, business management, or financial assistance issues or (2) proposal instructions should be directed to: Rosemary E. Duffy, DDS, MPH, Dental Education and Public Health Officer, Division of Associated, Dental, and Public Health Professions, Bureau of Health Professions, Health Resources and Services Administration, 5600 Fishers Lane, Room 8C–15, Rockville, Maryland 20857, Telephone: (301) 443–6837.

Completed proposals should be forwarded to the HIV/AIDS Dental Reimbursement Program Officer at the above address.

To receive consideration, proposals must meet the deadline of August 19, 1993. Applications will be considered to be "on time" if they are either:

(1) Received on or before the established deadline date, or
(2) Sent on or before the established deadline date and received in time for orderly processing. (Applicants should request a legibly dated U.S. Postal Service postmark or obtain a legibly dated receipt from a commercial carrier or U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.)

Late proposals not accepted for processing will be returned to the applicant.

The proposal instructions for this program have been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act. The OMB approval number is 0915–0151. The Program, HIV/AIDS Dental Reimbursement, is listed at 93.924 in the Catalog of Federal Domestic Assistance. Proposals submitted in response to this announcement are not subject to the provisions of Executive Order 12372, Intergovernmental Review of Federal Programs, (as implemented through 45 CFR part 100). This program is not subject to the Public Health System Reporting Requirements.

Dated: May 25, 1993.

William A. Robinson,

Acting Administrator.

[FR Doc. 93–17135 Filed 7–19–93; 8:45 am]

BILLING CODE 4160–15–P

Program Announcement, Proposed Definition, and Proposed Funding Priority and Special Consideration for Grants for Faculty Training Projects in Geriatric Medicine and Dentistry for Fiscal Year 1994

The Health Resources and Services Administration (HRSA) announces that applications will be accepted for fiscal year (FY) 1994 Grants for Faculty Training Projects in Geriatric Medicine and Dentistry under the authority of section 777(b), title VII of the Public Health Service Act, as amended by the Health Professions Education Extension Amendments of 1992, Public Law 102–408, dated October 13, 1992. Comments are invited on the proposed definition and the proposed funding priority and special consideration.

The Administration's budget request for FY 1994 does not include funding for this program. Applicants are advised that this program announcement is a contingency action being taken to assure that should funds become available for this purpose, they can be awarded in a timely fashion consistent with the needs of the program as well as to provide for even distribution of funds throughout the fiscal year. This notice regarding applications does not reflect any change in this policy.

Previous Funding Experience

Previous funding experience information is provided to assist potential applicants to make better informed decisions regarding submission of an application for this program. In FY 1991, HRSA reviewed 33 applications for Faculty Training Projects in Geriatric Medicine and Dentistry. Of those applications, 67 percent were approved and 33 percent were disapproved. Sixteen projects, or 48 percent of the applications received, were funded. There was no competitive cycle for FY 1992 or FY 1993.

Purpose

Section 777(b) of the Public Health Service Act authorizes the Secretary to make grants for the purpose of providing support (including residencies, traineeships, and fellowships) for geriatric training projects to train physicians and dentists who plan to teach geriatric medicine, geriatric psychiatry, or geriatric dentistry. We will not fund geriatric residency programs in FY 1994 because there are currently no accredited residency programs in geriatrics and there is no process in place to accredit such programs, nor is there a process for certification in geriatric medicine for residents who have not received a diplomate in internal medicine (IM) or family medicine (FM). If accredited geriatric residency training programs are established in the future or if requirements for the certificate in geriatric medicine are revised to permit IM/FM residents without diplomate status to begin training in geriatric medicine, this provision will be implemented. This program is governed by regulations as set forth in 42 CFR part 57, subpart PP to the extent to which these regulations are not inconsistent with the amended statute. The period of Federal support will not exceed 5 years.

Eligibility

Entities eligible for grant support include schools of medicine, schools of osteopathic medicine, teaching hospitals, and graduate medical education programs.

Training Options

Section 777(b) requires HRSA to fund the following training options:

a. A one-year retraining program in geriatrics for physicians who are faculty members in departments of internal medicine, family medicine, gynecology, geriatrics, and psychiatry at schools of medicine and osteopathic medicine; and dentists who are faculty members at schools of dentistry or at hospital departments of dentistry; and

b. A two-year internal medicine or family medicine fellowship program providing emphasis in geriatrics, which shall provide training in clinical geriatrics and geriatric research for physicians who have completed graduate medical education programs in internal medicine, family medicine, psychiatry, neurology, gynecology, or rehabilitation medicine; and dentists who have demonstrated a commitment to an academic career and who have completed postdoctoral dental training, including postdoctoral dental education programs or who have relevant advanced training or experience.

Proposed Definition

"Relevant advanced training or experience" is defined as at least one of the following:

(a) Completion of at least a 12 month graduate training program in a health-related discipline, the basic sciences, or education; or

(b) A minimum of 2 years of clinical practice, of which at least twelve months were devoted in part to managing older dental patients in a hospital, long-term care facility, or other setting.

Project Requirements

A project supported under section 777(b) must be conducted in accordance with the following requirements:

a. The project must have a project director who is employed full time by the grantee institution;

b. Projects must have an appropriate administrative and organizational plan, and adequate faculty, physical, and administrative resources for the achievement of stated objectives;

c. Projects must systematically evaluate the training program, including the performance and competence of trainees and faculty, the administration of the program, and the degree to which program and educational objectives are met;

d. The project must be under the programmatic control of a graduate medical education program in internal medicine or family medicine (including osteopathic general practice) or in a department of geriatrics or psychiatry;

e. The project must be staffed by at least two physicians in full-time teaching positions who have experience or training in geriatric medicine or geriatric psychiatry and be staffed, or enter into an agreement with an institution staffed, by at least one dentist who is employed in a full- or part-time teaching position and has experience or training in geriatric dentistry;

f. The project must provide fellows with exposure to a diverse population of elderly individuals. The population must include:

1. Elderly in various levels of wellness from fully independent and well, to patients confined to bed with serious illness; and

2. Elderly from a range of socioeconomic, racial and ethnic backgrounds;

g. The project must provide medical and dental training experiences in:

1. An ambulatory care setting;

2. An inpatient service; and

3. An extended care facility.

During the course of the training, each fellow must receive experience in primary care, consultation, and longitudinal care;

h. Fellowship programs must have a curriculum which includes training in clinical geriatrics, teaching skills, administrative skills, and research skills for physicians and dentists;

i. Retraining programs must provide 1 year of full-time training suited to the individual needs of each fellow. To assure that the needs of all fellows can be met, each retraining program must have the resources available to provide clinical, research, administrative, and teacher-training experience; and

j. Effective in the second year of grant support, a minimum of three entering fellows, including at least one physician and one dentist, must be enrolled in each training program for which grant support is received.

National Health Objectives for the Year 2000

The Public Health Service urges applicants to submit work plans that address specific objectives of Healthy People 2000. Potential applicants may obtain a copy of Healthy People 2000 (Full Report; Stock No. 017–001–00474–0) or Healthy People 2000 (Summary Report; Stock No. 017–001–00473–1) through the Superintendent of Documents, Government Printing Office, Washington, DC 20402–9325 (Telephone 202–783–3238).

Education and Service Linkage

As part of its long-range planning, HRSA will be targeting its efforts to strengthening linkages between U.S. Public Health Service education programs and programs which provide comprehensive primary care services to the underserved.

Review Criteria

The review of applications will take into consideration the following criteria:

1. The extent to which the proposed training program will prepare physicians and dentists to perform the research, teaching, administrative and clinical duties of a faculty member specializing in geriatrics;

2. The degree to which the project plan adequately provides for meeting the project requirements;

3. The administrative, management and resource capability of the applicant to carry out the proposed project in a cost-effective manner;

4. The potential for the applicant to continue the program without Federal support after completion of the approved project period; and

5. The extent to which the project will increase the number of geriatric fellowship and retraining positions available for individuals who want to prepare for academic careers in geriatric medicine, psychiatry and dentistry.

Other Considerations

In addition, the following funding factors may be applied in determining funding of approved applications.

A funding priority is defined as the favorable adjustment of aggregate review scores of individual approved applications when applications meet specified criteria.

Special consideration is defined as the enhancement of priority scores by merit reviewers based on the extent to which applications address special areas of concern.

It is not required that applicants request consideration for a funding factor. Applications which do not request consideration for funding factors will be reviewed and given full consideration for funding.

Proposed Funding Priority

A funding priority will be given to applications that demonstrate linkages for the purpose of providing training experiences to educators in the care of minority or low-income elderly. Eligible training sites include Area Health

Education Centers, community and migrant health centers, community mental health centers, Native American clinics, Native Hawaiian clinics, state or local health departments, public health clinics, rural hospitals and clinics, and home health agencies and long-term care facilities that accept Medicaid patients. This priority is consistent with a HRSA strategy to improve the geriatric expertise of health professionals who serve minority and low-income elders at risk of poor health outcomes.

Proposed Special Consideration

Special consideration will be given to the extent to which applicants enroll educators from underserved areas.

Additional Information

Interested persons are invited to comment on the proposed definition and the proposed funding priority and special consideration. The comment period is 30 days. All comments received on or before August 19, 1993, will be considered before the final definition and final funding priority and special consideration are established. Written comments should be addressed to: Neil Sampson, Director, Division of Associated, Dental and Public Health Professions, Bureau of Health Professions, Health Resources and Services Administration, Parklawn Building, Room 8–103, 5600 Fishers Lane, Rockville, Maryland 20857.

All comments received will be available for public inspection and copying at the Division of Associated, Dental and Public Health Professions, Bureau of Health Professions, at the above address, weekdays (Federal holidays excepted) between the hours of 8:30 a.m. and 5 p.m.

Application Requests

Application materials will not be automatically mailed to prospective applicants. Requests for application materials and questions regarding grants policy and business management issues should be directed to: Ms. Brenda Selser, Grants Management Branch (D–31), Bureau of Health Professions, Health Resources and Services Administration, Parklawn Building, Room 8C–26, 5600 Fishers Lane, Rockville, Maryland 20857; Telephone: (301) 443–6880; FAX: (301) 443–6343. Completed applications should be returned to the Grants Management Branch at the above address.

If additional programmatic information is needed, please contact: Dr. Susan M. Klein, Geriatric Initiatives Branch, Division of Associated, Dental and Public Health Professions, Bureau of Health Professions, Health Resources and Services Administration, Parklawn Building, Room 8–103, 5600 Fishers Lane, Rockville, Maryland 20857; Telephone: (301) 443–6887; FAX: (301) 443–1164.

The standard application form PHS 6025–1, HRSA Competing Training Grant Application, General Instructions and supplement for this program have been approved by the Office of Management and Budget under the Paperwork Reduction Act. The OMB Clearance Number is 0915–0060.

The deadline date for receipt of applications is October 12, 1993. Applications will be considered to be "on time" if they are either:

(1) *Received on or before* the established deadline date, or

(2) *Sent on or before* the established deadline date and received in time for orderly processing. (Applicants should request a legibly dated U.S. Postal Service postmark or obtain a legibly dated receipt from a commercial carrier or U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.)

Late applications not accepted for processing will be returned to the applicant.

This program, Grants for Faculty Training Projects in Geriatric Medicine and Dentistry, is listed at 93.156 in the *Catalog of Federal Domestic Assistance.* It is not subject to the provisions of Executive Order 12372, Intergovernmental Review of Federal Programs (as implemented through 45 CFR part 100). This program is not subject to the Public Health System Reporting Requirements.

Dated: May 27, 1993.

William A. Robinson,

Acting Administrator.

[FR Doc. 93–17085 Filed 7–19–93; 8:45 am]

BILLING CODE 4160–15–P

Program Announcement for the Second Cycle for Nursing Special Project Grants for Fiscal Year 1993

The Health Resources and Services Administration (HRSA) announces that applications will be accepted for a second cycle in fiscal year (FY) 1993 for Grants for Nursing Special Projects under the authority of section 820, title VIII of the Public Health Service (PHS) Act, as amended by the Nurse Education and Practice Improvement Amendments of 1992, title II of the Health Professions Education Extension Amendments of 1992, Public Law 102–408, dated October 13, 1992. In addition, the Nursing Special Projects grants cycle for FY 1994 is expected to be announced within the next several months.

Approximately $1,200,000 will be available in FY 1993 for this second cycle to support approximately 7 competing awards averaging $175,000 for projects which begin no later than September 30, 1993.

Previous Funding Experience

Previous funding experience information is provided to assist potential applicants to make better informed decisions regarding submission of an application for this program. Data are not yet available for the first cycle in FY 1993. In FY 1992, HRSA reviewed 86 applications for Nursing Special Projects. Of those applications, 42 percent were approved and 58 percent were disapproved. Fifteen projects, or 42 percent of approved applications, were funded. In FY 1991, HRSA reviewed 140 applications for Nursing Special Projects. Of those applications, 34 percent were approved and 66 percent were disapproved. Fourteen projects, or 29 percent of approved applications, were funded.

Purpose

Section 820(a) of the PHS Act authorizes the Secretary to make grants for the purpose of assisting schools in increasing the number of students enrolled.

Section 820(b) of the PHS Act authorizes the Secretary to make grants for the establishment or expansion of nursing practice arrangements in noninstitutional settings to demonstrate methods to improve access to primary health care in medically underserved communities.

Section 820(c) of the PHS Act authorizes the Secretary to make grants for the purpose of providing continuing education for nurses serving in medically underserved communities.

Section 820(d) of the PHS Act authorizes the Secretary to make grants for the purpose of providing fellowships to individuals who are employed by nursing facilities or home health agencies as nursing paraprofessionals.

The request for initial support may not exceed five years for applications submitted under sections 820(a) and 820(b). The request for initial support may not exceed three years for applications submitted under sections 820(c) and 820(d).

This program is governed by regulations at 42 CFR part 57, subpart T to the extent to which these regulations are not inconsistent with the amended statute. The purposes, eligibility and statutory funding preferences have been changed by the Nurse Practice Improvement Amendments of 1992.

Reference to the purposes, eligibility and statutory funding preferences in the regulations are superseded by the law. The current purposes, eligibility and statutory funding preference are identified in this notice.

Eligibility

Eligible applicants for projects under section 820(a) include public and nonprofit private schools of nursing with programs of education in professional nursing. To receive support under 820(a) the school must agree to make available non-Federal contributions in an amount that is at least 10 percent of the project costs for the first fiscal year, at least 25 percent of the project costs for the second fiscal year, at least 50 percent of the project costs for the third fiscal year, and at least 75 percent of the project costs for the fourth or fifth fiscal years.

Eligible applicants for projects under section 820(b) include public and nonprofit private schools of nursing. To receive support under 820(b) the program proposed must be operated and staffed by the faculty and students of the school and must be designed to provide at least 25 percent of the students of the school with a structured clinical experience in primary health care.

Eligible applicants for projects under section 820(c) include public and nonprofit private entities.

Eligible applicants for projects under section 820(d) include public and nonprofit private entities that operate accredited programs of education in professional nursing, or State-board approved programs of practical or vocational nursing. To receive support under 820(d), the applicant must agree that, in providing fellowships, preference will be given to eligible individuals who (A) are economically disadvantaged individuals, particularly such individuals who are members of a minority group that is underrepresented among registered nurses; or (B) are employed by a nursing facility that will assist in paying the costs or expenses. The applicant must also agree that the fellowships provided will pay all or part of the costs of (A) the tuition, books, and fees of the program of nursing with respect to which the fellowship is provided; and (B) reasonable living expenses of the individual during the period for which the fellowship is provided.

National Health Objectives for the Year 2000

The Public Health Service urges applicants to submit work plans that address specific objectives of Healthy People 2000. Potential applicants may obtain a copy of *Healthy People 2000* (Full Report; Stock No. 017–001–00474–0) or *Healthy People 2000* (Summary Report; Stock No. 017–001–00473–1) through the Superintendent of Documents, Government Printing Office, Washington, DC 20402–9325 (Telephone 202–783–3238).

Education and Service Linkage

As part of its long-range planning, HRSA will be targeting its efforts to strengthening linkages between U.S. Public Health Service education programs and programs which provide comprehensive primary care services to the underserved.

Review Criteria

The review of applications will take into consideration the following criteria:

1. The national or special local need which the particular project proposes to serve;
2. The potential effectiveness of the proposed project in carrying out such purposes;
3. The administrative and managerial capability of the applicant to carry out the proposed project;
4. The adequacy of the facilities and resources available to the applicant to carry out the proposed project;
5. The qualifications of the project director and proposed staff;
6. The reasonableness of the proposed budget in relation to the proposed project; and
7. The potential of the project to continue on a self-sustaining basis after the period of grant support.

Other Considerations

In addition, the following funding factors may be applied in determining funding of approved applications.

A funding preference is defined as the funding of a specific category or group of approved applications ahead of other categories or groups of approved applications.

A funding priority is defined as the favorable adjustment of aggregate review scores of individual approved applications when applications meet specified criteria.

It is not required that applicants request consideration for a funding factor. Applications which do not request consideration for funding factors will be reviewed and given full consideration for funding.

Statutory Funding Preferences

In making awards of grants under section 820(a), preference will be given to any qualified school that provides students of the school with clinical training in the provision of primary health care in publicly-funded (A) urban or rural outpatient facilities, home health agencies, or public health agencies; or (B) rural hospitals.

In making awards of grants under section 820(d), preference will be given to any qualified applicant operating an accredited program of education in professional nursing that provides for the rapid transition to status as a professional nurse from status as a nursing paraprofessional.

Established Funding Priorities

The following funding priorities were established in FY 1993 after public comment (58 FR 35020) and the Administration is extending these funding priorities for the second cycle in FY 1993. In determining the order of funding of approved applications a priority will be given to schools that offer generic baccalaureate programs. A priority will also be given to schools that offer both generic baccalaureate nursing programs and RN completion programs. These priorities apply to applications for grants under section 820(a).

A funding priority will be given to programs which demonstrate either substantial progress over the last 3 years or a significant experience of 10 or more years in enrolling and graduating trainees from those minority or low-income populations identified as at-risk of poor health outcomes. This priority applies to applications for grants under sections 820(a), 820(b), and 820(d).

Finally, a funding priority will be given to applications for continuing education programs for nurses from medically underserved areas to increase their knowledge and skills in care of persons who are HIV positive or who have AIDS. This priority applies to applications for grants under section 820(c).

Application Requests

Requests for application materials and questions regarding grants policy and business management issues should be directed to: Grants Management Branch (D10), Bureau of Health Professions, Health Resources and Services Administration, Parklawn Building, Room 8C–26, 5600 Fishers Lane, Rockville, Maryland 20857; Telephone: (301) 443–6915; FAX: (301) 443–6343. Completed applications should be returned to the Grants Management Branch at the above address.

If additional programmatic information is needed, please contact: Mary S. Hill, Chief, Nursing Education and Practice Resources Branch, Division of Nursing, Bureau of Health Professions, Health Resources and

Services Administration, Parklawn Building, Room 9–36, 5600 Fishers Lane, Rockville, Maryland 20857; Telephone: (301) 443–6193; FAX: (301) 443–8586.

The standard application form PHS 6025–1, HRSA Competing Training Grant Application, General Instructions and supplement for this program have been approved by the Office of Management and Budget under the Paperwork Reduction Act. The OMB Clearance Number is 0915–0060.

The deadline date for receipt of applications is August 20, 1993. Applications will be considered to be "on time" if they are either:

(1) *Received on or before* the established deadline date, or

(2) *Sent on or before* the established deadline date and received in time for orderly processing. (Applicants should request a legibly dated U.S. Postal Service postmark or obtain a legibly dated receipt from a commercial carrier or U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.)

Late applications not accepted for processing will be returned to the applicant.

This program, Nursing Special Project Grants, is listed at 93.359 in the *Catalog of Federal Domestic Assistance*. It is not subject to the provisions of Executive Order 12372, Intergovernmental Review of Federal Programs (as implemented through 45 CFR part 100). This program is not subject to the Public Health System Reporting Requirements.

Dated: July 14, 1993.

William A. Robinson,

Acting Administrator.

[FR Doc. 93–17086 Filed 7–19–93; 8:45 am]

BILLING CODE 4160–15–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[CA–060–5101–10–B016,CACA 27497]

Cancellation of Notice of Availability of Final Cajon Pipeline Environmental Impact Statement/Environmental Impact Report

AGENCY: Bureau of Land Management, Interior.

ACTION: Cancellation of notice of availability.

SUMMARY: The Notice of Availability published in the **Federal Register** on July 9, 1993 for the Final Cajon Pipeline Environmental Impact Statement/ Environmental Impact report is hereby cancelled in its entirety. A revised Notice of Availability is being published and will amend the dates for receiving written comments.

FOR FURTHER INFORMATION CONTACT: Stephen L. Johnson, Special Projects Manager, California Desert District Office, 6221 Box Springs Blvd, Riverside, CA 92507–0714; phone (714) 697–5234.

Dated: July 14, 1993.

Henri R. Bisson,

District Manager.

[FR Doc. 93–17322 Filed 7–19–93; 8:45 am]

BILLING CODE 4310–40–M

[CA–060–5101–10–B016, CACA 27497]

Notice of Availability of Final Cajon Pipeline Environmental Impact Statement/Environmental Impact Report

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of availability.

SUMMARY: In accordance with section 202 of the National Environmental Policy Act of 1969, the Bureau of Land Management, California Desert District, has prepared a joint Federal/State Final Environmental Impact Statement/ Environmental Impact Report (EIS/EIR) for the proposed Cajon Pipeline Project, with the City of Adelanto. This Final EIS/EIR describes and analyzes the proposed Project, project alternatives, and marketing alternatives. This Project, as proposed, will traverse both Federal and private lands in San Bernardino and Los Angeles Counties in southern California.

DATES: Written comments will be accepted until August 16, 1993.

ADDRESS: Written comments should be sent to the District Manager, Bureau of Land Management, 6221 Box Springs Blvd., Riverside, CA 92507–0714, ATTN: Cajon Pipeline Project.

FOR FURTHER INFORMATION CONTACT: Stephen L. Johnson, Special Projects Manager, California Desert District Office, 6221 Box Springs Blvd., Riverside, CA 92507–0714; phone (714) 697–5234.

SUPPLEMENTARY INFORMATION: Discoveries in the Santa Barbara Channel off the coast of California along the Outer Continental Shelf (OCS) and on-shore through thermal enhanced oil recovery in the San Joaquin Valley (SJV) have yielded significant new reserves of heavy, high sulphur crude oil. As a result of these discoveries and the desire of producers to transport this heavy crude to the Los Angeles Basin refineries, a heated pipeline system capable of handling this crude in its "neat" state is being considered. Existing pipelines do not have the capacity to handle the anticipated volume. In addition, heavy crude requires the addition of heat to allow it to be efficiently pumped through pipelines, and no heated common carrier pipeline exists today into the Los Angeles Basin.

To connect the producers and refiners, the Cajon Pipeline Company proposes to build a 142-mile-long, 20-inch diameter insulated buried pipeline from 12-Gauge Lake (27 miles west of Barstow), California, to the Los Angeles crude oil terminals in Carson and Long Beach. Crude oil from the Santa Barbara Channel and the San Joaquin Valley would be delivered to 12-Gauge Lake by the existing All American Pipeline. From there it would be conveyed to the Los Angeles Basin by the proposed Cajon Pipeline. The Cajon Pipeline would have a maximum capacity of 180,000 barrels per day (BPD), but would be expected to operate at an average flow of 150,000 BPD. Two pump stations would be needed to move heated crude oil through the Cajon Pipeline. One pump station, together with storage, would be located at 12-Gauge Lake. The other pump station, together with control and maintenance facilities, would be located at Adelanto. The Final EIS/EIR for the proposed Cajon Pipeline Project includes an analysis of the environmental impacts of the proposed pipeline system during construction and operation.

This Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the proposed Cajon Pipeline Project has been prepared in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The Bureau of Land Management's preferred alternative is the Proposed Project, as described in the Final EIS/EIR, and modified by the Sycamore Segment.

During the public review of the Draft EIS/EIR, agencies and the general public expressed concerns regarding revegetation, system safety, location relative to an elementary school and mitigation monitoring. In response to these concerns, the proposed project and mitigation measures which would be imposed have been modified. Besides the changes incorporated into Volume 1 of the Final EIS/EIR, a new section entitled Mitigation Monitoring Program has been included in Volume II to assure compliance if the Cajon Pipeline Project is approved.

Dated: July 14, 1993.

Henri R. Bisson,

District Manager.

[FR Doc. 93–17323 Filed 7–19–93; 8:45 am]

BILLING CODE 4310–40–M

[CO–070–03–4320–01]

Temporary Travel Restrictions For The Siloam Springs-Dotsero Area

AGENCY: Bureau of Land Management, Department of Interior.

ACTION: Order of Area, Road and Trail Use Restrictions.

SUMMARY: This order limits all motorized vehicle use to designated roads and trails year round, including snowmobiles, on certain public lands in the vicinity of Dotsero in the Glenwood Springs Resource Area, Grand Junction District. The existing Off Highway Vehicle (OHV) use "Open" designation on 5,800 acres is modified by this order, issued under the authority of 43 CFR 8364.1 and 43 CFR 8341.2(a) as a temporary measure while a Resource Area-wide travel management plan is developed.

The affected public land, situated in Eagle and Garfield counties, is generally located in T. 7 S., R. 87 W., Sec. 2, 3, 10, 11, 12; it is bounded by Interstate 70 to the south, the Colorado River to the east, Deep Creek and the Coffee Pot Rd. to the north, and the White River National Forest boundary to the west.

EFFECTIVE DATES: The restrictions shall be effective immediately until rescinded or modified by the Authorized Officer.

SUPPLEMENTARY INFORMATION: Public use in the affected area is expected to increase after completion of the Glenwood Canyon I–70 rest areas by the Colorado Department of Transportation (DOT) in the summer of 1993, and as public awareness of the Dotsero-Ute trail increases. Current OHV use designations, established in the Glenwood Springs Resource Area Resource Management Plan, 1984 (Rev. 1988), allow motorized vehicle use, and non-motorized mechanical travel, on and off the roads and trails year round. With increased public use, current regulations could lead to establishment of new roads and trails, and uncontrolled motorized and non-motorized vehicle use on the public lands which could result in considerable adverse effects on the area's cultural, vegetation, soil, visual, and wildlife resources. Additionally, the existing trails are narrow, with steep grades and deteriorated conditions which are not safe for general public use by motorized vehicle.

The area contains significant cultural values that are fragile and easily damaged or destroyed through intentional or unintentional actions. Sensitive plant species (Aquilegia barnebii, Penstemon harringtonii) identified in the area could also be damaged by uncontrolled use. The area's steep soils are prone to severe erosion, and uncontrolled travel could exacerbate debris flows onto Interstate 70. The slopes visible from I–70 and the Colorado River road are of scenic importance and highly sensitive, and uncontrolled travel could create scars which would degrade visual qualities. Additionally, the area provides important deer and elk winter range which is as critical habitat, and motorized travel during the winter would cause unnecessary stress on the animals and adversely affect their health.

The area is used for livestock grazing which at times requires motorized vehicle access for maintenance and operation of range facilities, and motorized access is needed to provide for recreational access, for general administration of the public lands, law enforcement and fire suppression.

Given the potential impacts of uncontrolled motorized and mechanized vehicle use and the deteriorated condition of existing trails, a modification of use regulations is necessary to adequately protect resources on public land and ensure public safety while providing for necessary access and travel.

The area, roads, and trails affected by this order will be posted with appropriate regulatory signs. Information including maps of the restricted area is available in the Resource Area Office and District Office at the addresses shown below.

The Siloam Springs-Dotsero Area described herein will be subject to the following use restrictions:

All motorized vehicle use will be limited to designated roads, trails and areas year round including snowmobiles operating on snow. The roads and trails designated to provide for vehicle use shall include the Coffeepot Road, the Colorado River Road (Eagle County Road #301), Colorado Highway 6, the Dotsero-Ute Trailhead driveway and parking area, the Siloam Springs driveway and parking area, and parking areas along the Coffee Pot Road. Motorized travel on other exiting roads and trails, and off the roads and trails shall be prohibited. Non-motorized mechanized vehicle use shall be allowed on roads and trails whether designated for non-motorized or motorized travel, but non-motorized vehicle travel off the roads and trails shall be prohibited. Persons who are exempt from the restrictions include:

(1) Any Federal, State, or local officers engaged in fire, emergency and law enforcement activities;

(2) BLM employees engaged in official duties;

(3) Persons authorized to operate motorized vehicles within the restricted area.

Penalties: Violations of this restriction order are punishable by fines not to exceed $1,000 and/or imprisonment not to exceed 12 months.

FOR FURTHER INFORMATION CONTACT: Michael S. Mottice, Area Manager, Glenwood Springs Resource Area, 50629 Highway 6/24, P.O. Box 1009, Glenwood Springs, CO 81602; (303) 945–2341. Timothy Hartzell, District Manager, Grand Junction District, 2815 H Road, Grand Junction, Colorado 81506; (303) 244–3050.

Timothy Hartzell,

Grand Junction District Manager.

[FR Doc. 93–17128 Filed 7–19–93; 8:45 am]

BILLING CODE 4310–JB–M

Fish and Wildlife Service

Availability of a Draft Recovery Plan for the Puritan Tiger Beetle for Review and Comment

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of document availability.

SUMMARY: The U.S. Fish and Wildlife Service announces the availability for public review of a draft Recovery Plan for the Puritan tiger beetle (*Cicindela puritana*). This species is found along the Connecticut River in Massachusetts and Connecticut, and in Maryland along the Chesapeake Bay and near the mouth of the Sassafras River. The Service solicits review and comment from the public on this draft plan.

DATES: Comments on the draft Recovery Plan must be received September 20, 1993 to receive consideration by the Service.

ADDRESSES: Persons wishing to review the draft Recovery Plan can obtain a copy from the U.S. Fish and Wildlife Service, Chesapeake Bay Field Office, 1825 Virginia Street, Annapolis, Maryland 21401, telephone 410/269–5448.

FOR FURTHER INFORMATION CONTACT: Judy Jacobs (see **ADDRESSES**).

SUPPLEMENTARY INFORMATION:

Background

Restoring an endangered or threatened animal or plant to the point where it is again a secure, self-sustaining member of its ecosystem is a primary goal of the U.S. Fish and Wildlife Service's endangered species program. To help guide the recovery effort, the Service is working to prepare Recovery Plans for most of the listed species native to the United States. Recovery Plans describe actions considered necessary for conservation of the species, establish criteria for the recovery levels for downlisting or delisting them, and estimate time and cost for implementing the recovery measures needed.

The Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*) requires the development of Recovery Plans for listed species unless such a Plan would not promote the conservation of a particular species. Section 4(f) of the Act, as amended in 1988, requires that public notice and an opportunity for public review and comment be provided during Recovery Plan development. The Service will consider all information presented during a public comment period prior to approval of each new or revised Recovery Plan. The Service and other Federal agencies will also take these comments into account in the course of implementing Recovery Plans.

The document submitted for review is the draft Puritan Tiger Beetle (*Cicindela puritana*) Recovery Plan. The Puritan tiger beetle historically occurred in 11 known locations along the Connecticut River, and in the Maryland portion of the Chesapeake Bay. Only two small Connecticut River populations remain, one in Massachusetts and one in Connecticut. Six populations with more than 500 adults, along with several smaller populations, are now known in Maryland.

The decline of the Puritan Tiger beetle along the Connecticut River is attributed to inundation and disturbance of shoreline habitat from dam construction, riverbank stabilization, and other human activities. The beetle larvae, in particular, are sensitive to natural and artificial changes to beaches and cliffs, as well as pedestrian and vehicular traffic and water-borne pollution. Populations in the Chesapeake Bay region are threatened by habitat alterations caused by development and shore erosion control projects. Due to its declining status and continuing threats, the species was listed as threatened in August 1990.

The primary objectives of the draft Recovery Plan are to stabilize the long-term status and ensure the viability of the species in the wild, thereby enabling the Puritan tiger beetle's removal from the Federal list of endangered and threatened wildlife and plants. Conditions that must be met to delist the Puritan tiger beetle include establishment of three populations of 500–1000 adult beetles within the former range of the species along the Connecticut River, maintenance of five populations of 500–1000 adults at current sites within the Chesapeake Bay region, data showing that all these populations have been self-maintaining or expanding for at least ten years, permanent habitat protection, and implementation of a long-term management program that is based on an adequate understanding of the species' life history.

These conditions will be achieved through long-term monitoring of known Puritan Tiger beetle populations, further studies of life history parameters and the effects of human activity upon the beetle and its habitat, broad protection (primarily through planning and zoning mechanisms) of occupied and potential reintroduction sites, site-specific management as needed, and the reintroduction and protection of populations at release sites along the Connecticut River.

The draft Recovery Plan is being submitted for agency review. After consideration of comments received during the review period, the Plan will be submitted for final approval.

Public Comments Solicited

The Service solicits written comments on the Recovery Plan described. All comments received by the date specified above will be considered prior to approval of the Plan.

Authority

The authority for this action is section 4(f) of the Endangered Species Act, 16 U.S.C. 1533(f).

Dated: July 6, 1993.

Frank M. DeLuise,

Acting Regional Director.

[FR Doc. 93–17022 Filed 7–19–93; 8:45 am]

BILLING CODE 4310-55-M

Availability of a Draft Recovery Plan for the Northeastern Beach Tiger Beetle for Review and Comment

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of document availability.

SUMMARY: The U.S. Fish and Wildlife Service announces the availability for public review of a draft Recovery Plan for the northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*). This subspecies is found in Massachusetts and along the Chesapeake Bay in Maryland and Virginia. The Service solicits review and comment from the public on this draft Plan.

DATES: Comments on the draft Recovery Plan must be received September 20, 1993 to receive consideration by the Service.

ADDRESSES: Persons wishing to review the draft Recovery Plan can obtain a copy from the U.S. Fish and Wildlife Service, Chesapeake Bay Field Office, 1825 Virginia Street, Annapolis, Maryland 21401, telephone 410/269–5448.

FOR FURTHER INFORMATION CONTACT: Judy Jacobs (see **ADDRESSES**).

SUPPLEMENTARY INFORMATION:

Background

Restoring an endangered or threatened animal or plant to the point where it is again a secure, self-sustaining member of its ecosystem is a primary goal of the U.S. Fish and Wildlife Service's endangered species program. To help guide the recovery effort, the Service is working to prepare Recovery Plans for most of the listed species native to the United States. Recovery Plans describe actions considered necessary for conservation of the species, establish criteria for the recovery levels for downlisting or delisting them, and estimate time and cost for implementing the recovery measures needed.

The Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*) requires the development of Recovery Plans for listed species unless such a Plan would not promote the conservation of a particular species. Section 4(f) of the Act, as amended in 1988, requires that public notice and an opportunity for public review and comment be provided during Recovery Plan development. The Service will consider all information presented during a public comment period prior to approval of each new or revised Recovery Plan. The Service and other Federal agencies will also take these comments into account in the course of implementing Recovery Plans.

The document submitted for review is the draft Northeastern Beach Tier Beetle (*Cicindela dorsalis dorsalis*) Recovery Plan. This tiger beetle historically was abundant on beaches along the Atlantic Coast, from Cape Cod, Massachusetts to central New Jersey and along

Chesapeake Bay beaches in Maryland and Virginia. Only one population remains on the Atlantic Coast, on Martha's Vineyard, Massachusetts. The subspecies occurs at over 50 sites in the Chesapeake Bay region. Approximately 16 of these sites support more than 500 adults, and 10 sites support from 100 to 500 adults.

The northeastern beach tiger beetle is most vulnerable to disturbance in the larval stage, which lasts two years. Larvae live in vertical burrows generally in the beach intertidal zone, where they are particularly sensitive to destruction by high levels of pedestrian traffic, ORVs, and other factors such as beach changes due to coastal development and beach stabilization structures. Although dispersal abilities of adults are good, population recruitment seems to be hampered by a lack of both undisturbed beaches and of populations as a colonizing source.

These threats resulted in a very rapid rate of extirpation of this beetle in its harsher Atlantic Coast environment. The Chesapeake Bay populations could also crash as the pace of shoreline development and beach recreation in the Bay region accelerates. The northeastern beach tiger beetle appears to require large numbers and proximity to necessary source populations in order to ward off stochastic events that could result in such a crash. Because of its population dynamics and continuing threats, the northeastern beach tiger beetle was listed as threatened in August 1990.

The primary objectives of the draft Recovery Plan are to stabilize the long-term status and ensure the viability of the species in the wild, thereby enabling the northeastern beach tiger beetle's removal from the Federal list of endangered and threatened wildlife and plants. Conditions that must be met to delist this tiger beetle include establishment and permanent protection of 12 populations within the former range of the subspecies along the Atlantic Coast (with at least four of these populations consisting of 500–1000 adult beetles), permanent protection of at least 10 populations with a minimum of 500–1000 adults at current sites within the Chesapeake Bay region, protection of sufficient habitat along both the Atlantic Coast and the Chesapeake Bay to allow for population expansion and interchange, an understanding of the beetle's life history sufficient for effective management, and establishment of a monitoring and management program for the subspecies.

These conditions will be achieved through long-term monitoring of northeastern beach tiger beetle populations, further studies into taxonomy (certain genetic differences suggest that the Atlantic Coast and Chesapeake Bay forms might actually be separate taxa) and life history parameters, continued evaluation of human activity and land use impacts on beetle populations, protection of occupied sites and site-specific management as needed, reintroduction and protection of populations at release sites along the Atlantic Coast, and monitoring and management of the reintroduced populations as needed.

The draft Recovery Plan is being submitted for agency review. After consideration of comments received during the review period, the Plan will be submitted for final approval.

Public Comments Solicited

The Service solicits written comments on the Recovery Plan described. All comments received by the date specified above will be considered prior to approval of the Plan.

Authority

The authority for this action is Section 4(f) of the Endangered Species Act, 16 U.S.C. 1533(f).

Dated: July 7, 1993.

Frank M. DeLuise,

Acting Regional Director.

[FR Doc. 93–17020 Filed 7–19–93; 8:45 am]

BILLING CODE 4310-55-M

National Park Service

Boundary Revision

AGENCY: National Park Service, DOI.

ACTION: Notice of boundary revision, Fort Frederica National Monument.

SUMMARY: Section 2 of the Act of May 16, 1958 (72 Stat. 110), authorized a revision of the boundaries of the Fort Frederica National Monument. The Act provides that "the Secretary of the Interior is authorized and directed to acquire by purchase, condemnation or otherwise, subject to the acreage limitation contained in the aforementioned Act, the site known as the Bloody Marsh Battle memorial monument located on Saint Simons Island, Georgia, together with such additional land, including the marshland across the river to the west of Fort Frederica National Monument, or interest in land, as in the judgment of the Secretary of the Interior might be desirable for the protection of such national monument."

Notice is given that the boundary of Fort Frederica National Monument has been revised pursuant to the above Act, to include the land identified in the Land Protection Plan, approved December 18, 1991, and depicted on map number 369–92,001, dated April 29, 1993, prepared by the Land Resources Division of the Washington Office of the National Park Service.

SUPPLEMENTARY INFORMATION: The Land Protection Plan and map are on file and available for inspection in the Land Resources Division, Southeast Regional Office, 75 Spring Street SW, Atlanta, Georgia 30303, and in the Offices of the National Park Service, Department of the Interior, Washington, DC 20013–7127.

Dated: June 29, 1993.

James W. Coleman, Jr.,

Regional Director, Southeast Region, National Park Service.

[FR Doc. 93–17091 Filed 7–19–93; 8:45 am]

BILLING CODE 4310–70–M

Public Hearing

AGENCY: National Park Service, Interior.

ACTION: Public hearing regarding the federal subsistence sheep season in a portion of Unit 23 in the Baird Mountains, Alaska.

SUMMARY: A public hearing is scheduled regarding the federal subsistence sheep season in the Baird Mountain portion of Unit 23. Dependent upon the status of the sheep population, the Federal Subsistence Board may have to exercise its closure authority to conserve healthy and natural populations of sheep in the area. If such a closure becomes necessary, this public meeting will have fulfilled the requirements of 50 CFR 100.19. The purpose of the meeting will be to inform the public of the status of the sheep population and potential proposals to the Federal Subsistence Board for action. Public comment will be accepted.

BACKGROUND: Aerial surveys conducted in the Baird Mountains (that area of Unit 23 south and east of the Noatak River) show a dramatic decline in the sheep population since 1989. In an effort to protect this population and facilitate its recovery, this area has been closed to all hunting of sheep since 1991, through closure actions of the Federal Subsistence Board. Survey results from July 1992 indicate the sharp decline has at least temporarily stopped; however, the population has not significantly grown. A sheep survey by the Alaska Department of Fish and Game and the National Park Service is scheduled for mid-July 1993. These survey results are expected to be

available for discussion at the July 22 meeting. Should the survey, and past biological data, indicate a continuing threat to the conservation of a healthy population of sheep in the Baird Mountains of Unit 23, a proposal will be advanced to the Federal Subsistence Board to once again close federal public lands to sport hunting, under Alaska regulations, and to the subsistence seasons currently scheduled for August 10–September 20, 1993, and October 1–April 30, 1994. The Federal Subsistence Board will make a final determination on any such proposed closure, if advanced.

The National Park Service is hosting this meeting as the principal federal land manager in the area with responsibility for the proper management of Noatak National Preserve and Kobuk Valley National Park.

DATE/LOCATION: The meeting will be held July 26, 1993, at 7 p.m. in the Public Lands Information Center, Kotzebue, Alaska.

FOR FURTHER INFORMATION CONTACT: Bob Gerhard, National Park Service, PO Box 1029, Kotzebue, Alaska 99752, telephone: (907) 442–3890.

Paul F. Haertel,

Acting Regional Director.

[FR Doc. 93–17090 Filed 7–19–93; 8:45 am]

BILLING CODE 4310–70–M

Subsistence Meetings

AGENCY: National Park Service, Interior.

ACTION: Subsistence Resource Commission meeting.

SUMMARY: The Superintendent of Gates of the Arctic National Park and Preserve and the Chairperson of the Subsistence Resource Commission for Gates of the Arctic National Park announce a forthcoming meeting of the Gates of the Arctic National Park Subsistence Resource Commission.

The following agenda items will be discussed:

(1) Call to order.
(2) Roll call.
(3) Approval of summary of minutes.
(4) Review Agenda.
(5) Superintendent's welcome:
  a. Introduction of guests.
  b. Review of SRC function and purpose.
(6) Superintendent's report.
(7) Old Business:
  a. State Lease Sale 57 update.
  b. Resolution 85–05—Hunting Plan Outline.
  c. Review public comments and finalize draft Hunting Plan Recommendations 7 and 8.
  d. Federal Subsistence Program Update.
(8) New business:
  a. Resource Management Plan.
  b. Park Subsistence Program update.
(9) Public and other agency comments.
(10) Set time and place of next SRC meeting.
(11) Adjournment.

DATE: The meeting will be held Tuesday through Thursday, August 10–12, 1993. The meeting will begin at 8:30 a.m. each day and conclude around 5 p.m. (by noon on Thursday).

LOCATION: The meeting will be held at Commack's Lodge in Shungnak, Alaska.

FOR FURTHER INFORMATION CONTACT: Steven P. Martin, Superintendent, PO Box 74680, Fairbanks, Alaska 99707. Phone (907) 456–0281.

SUPPLEMENTARY INFORMATION: The Subsistence Resource Commissions are authorized under title VIII, section 808, of the Alaska National Interest Lands Conservation Act, Public Law 96–487, and operate in accordance with the provisions of the Federal Advisory Committees Act.

Paul F. Haertel,

Acting Regional Director,

[FR Doc. 93–17089 Filed 7–19–93; 8:45 am]

BILLING CODE 4310–70–M

National Register of Historic Places; Notification of Pending Nominations

Nominations for the following properties being considered for listing in the National Register were received by the National Park Service before July 10, 1993. Pursuant to § 60.13 of 36 CFR part 60 written comments concerning the significance of these properties under the National Register criteria for evaluation may be forwarded to the National Register, National Park Service, P.O. Box 37127, Washington, DC 20013–7127. Written comments should be submitted by August 4, 1993.

Beth Boland,

Acting Chief of Registration, National Register.

ALABAMA

Cleburne County

Morgan, John, House, 321 Ross St., Heflin, 93000762

Jefferson County

Redmont Garden Apartments, 2829 Thornhill Rd., Mountain Brook, 93000761

Marengo County

Cedar Crest (Plantations of the Alabama Canebrake MPS), E. side Marengo Co. Rd. 51, .5 mi. S. of Co. Rd. 54, Faunsdale vicinity, 93000763

ALASKA

Juneau Borough—Census Area

Jualpa Mining Camp, 1001 Basin Rd., Juneau, 93000733

ARIZONA

Maricopa County

Arizona Academy—North Hall and South Hall (Educational Buildings in Phoenix MPS), 1325 N. 14th St., Phoenix, 93000813
Bethlehem Baptist Church (Religious Architecture in Phoenix MPS), 1402 E. Adams St., Phoenix, 93000744
Brophy College Chapel (Religious Architecture in Phoenix MPS), 4701 N. Central Ave., Phoenix, 93000747
Cartwright School (Educational Buildings in Phoenix MPS), 5833 W. Thomas Rd., Phoenix, 93000739
Dunbar School (Educational Buildings in Phoenix MPS), 707 W. Grant, Phoenix, 93000740
First Church of Christ Scientist (Religious Architecture in Phoenix MPS), 924 N. First St., Phoenix, 93000745
First Presbyterian Church (Religious Architecture in Phoenix MPS), 402 W. Monroe St., Phoenix, 93000746
Franklin School (Educational Buildings in Phoenix MPS), 1625 W. McDowell Rd., Phoenix, 93000814
Garfield Methodist Church (Religious Architecture in Phoenix MPS), 1302 E. Roosevelt St., Phoenix, 93000743
Immaculate Heart of Mary (Religious Architecture in Phoenix MPS), 909 E. Washington St., Phoenix, 93000742
Whittier, John G., School (Educational Buildings in Phoenix MPS), 2004 N. 16th St., Phoenix, 93000741

ARKANSAS

Chicot County

Tushek, John, Building, 108 Main St., Lake Village, 93000811

Searcy County

Bryan, Noah, Store (Searcy County MPS), SW corner of Glade and Main Sts., Marshall, 93000760
Daniel, Dr. Sam G., House (Searcy County MPS), N. side of Nome St., one block W. of Courthouse Square, Marshall, 93000759
Farmers Bank Building (Searcy County MPS), Jct. of Main and Walnut Sts., Leslie, 93000753
Fendley, Bud, House (Searcy County MPS), 201 Spring St., Marshall, 93000816
Gates—Helm Farm (Searcy County MPS), Co. Rd. 13, approximately 1 mi. N of jct. with Co. Rd. 250, Snowball vicinity, 93000817
Hatchett, Columbus, House (Searcy County MPS), N. side, jct. of Main and Hazel Sts., Leslie, 93000756
Leslie—Rolen House (Searcy County MPS), Jct. of Cherry and High Sts., Leslie, 93000815
Lynch, Thomas, House (Searcy County MPS), Co. Rd. 52, approximately 2.5 mi. N of Morning Star, Morning Star vicinity, 93000757
Redman, Oscar, Building (Searcy County MPS), 119 E. Main St., Marshall, 93000758

Thomas, Greene, House (Searcy County MPS), W of Co. Rd. 55, 0.25 mi. S of jct. with Co. Rd. 75, Leslie vicinity, 93000755
Treat Commercial Building (Searcy County MPS), Oak St. NW side, between High and 4th Sts., Leslie, 93000752
Treece, Jasper E., Building (Searcy County MPS), W of Co. Rd. 55, approximately 0.5 mi. S of jct. with AR 74, Baker vicinity, 93000754

CONNECTICUT

New London County

Post Hill Historic District, Roughly bounded by Broad, Center, Vauxhall, Berkeley, Fremont and Walker Sts., New London, 93000812

FLORIDA

Hillsborough County

Seminole Heights Residential District, Roughly bounded by Osborne, Florida, Hanna, and Cherokee Aves., Tampa, 93000751

Volusia County

Stevens, Ann, House, 201 E. Kicklighter Rd., Lake Helen, 93000734

HAWAII

Kauai County

Camp Sloggett, SW of HI 550, Kokee vicinity, 93000773
Kilauea Plantation Head Bookkeeper's House (Kilauea Plantation Stone Buildings MPS), 2421 Kolo Rd., Kilauea, 93000774
Kilauea Plantation Head Luna's House (Kilauea Plantation Stone Buildings MPS), 2457 Kolo Rd., Kilauea, 93000775
Kilauea Plantation Manager's House (Kilauea Plantation Stone Buildings MPS), 4591 Kauma Rd., Kilauea, 93000777
Kong Lung Store (Kilauea Plantation Stone Buildings MPS), W. side of Lighthouse Rd., about .5 mi N. of HI 56., Kilauea, 93000776

MICHIGAN

Kent County

Mt. Mercy Academy and Convent, 1425 Bridge St., Grand Rapids, 93000769

Washtenaw County

Goodyear Block, 138 E. Main St., Manchester, 93000770

MISSISSIPPI

Jasper County

Archeological Site No. 22JS572, Address Restricted, Bay Springs vicinity, 93000731
Archeological Site No. 22JS587, Address Restricted, Bay Springs vicinity, 93000732

Leflore County

Murphey Site, Address Restricted. Itta Bena vicinity, 93000730

NEW JERSEY

Camden County

Bennett, Volney G., Lumber Company. 138 Division St. and 845 S. Second St., Camden City, 93000749

Sussex County

Meadowburn Farm, Address Restricted, Vernon vicinity, 93000748

NEW YORK

Erie County

Scheidemantel, George and Gladys, House. 363 Oakmood Ave., East Aurora, 93000778

NORTH CAROLINA

Guilford County

Summit Avenue Historic District (Greensboro MPS), Roughly bounded by Chestnut, East Bessemer, Cypress, Demey, Park, and Percy Sts., Greensboro, 93000768

Lee County

Farrar, Obediah, House (Lee County MPS), Haywood vicinity, 93000728
McIver, John D. Farm (Lee County MPS), 2007 Windmill Dr., Sanford, 93000729

Mecklenburg County

Mayes House, 436 E. Morehead St., Charlotte, 93000735

New Hanover County

Audubon Trolley Station. Jct. of Park Ave. and Audubon Blvd., Wilmington, 93000736

Orange County

Gimghoul Neighborhood Historic District. Roughly bounded by Gimghoul Rd., Ridge Ln., and Gladon Dr., Chapel Hill, 93000807

Rowan County

Knox—Johnstone House 100 Beaumount Farm R., Cleveland, 93000737

SOUTH DAKOTA

Beadle County

Archeological site No. 39BE3 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Holsey vicinity, 93000802

Butte County

Iri State Bakery, 705 State St., Belle Fourche, 93000781

Corson County

Archeological Site No. 39C039 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Mahto vicinity, 93000765

Custer County

Archeological Site No. 39CU890 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Hermosa vicinity, 93000803

Fall River County

Archeological Site No. 39FA806 (Prehistoric Rock Art of South Dakota MPS), Address Restricted.
Hot Springs vicinity, 93000790
Archeological Site No. 39FA1049 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Hot Spring vicinity, 93000791
Archeological Site No. 39FA1201 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Edgemont vicinity 93000792
Archeological Site No. 39FA678 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Edgemont vicinity, 93000801
Archeological Site No. 39FA686 (Prehistoric Rock Art of South Dakota MPS), Edgemont vicinity, 93000804
Archeological Site No. 39FA89 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Edgemont vicinity, 93000806

Harding County

Archeological Site No. 39HN208 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Ludlow vicinity, 93000794
Archeological Site No. 39HN17 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Ludlow vicinity, 93000805

Hughes County

Karcher Block, 336 S. Pierre St., Pierre, 93000783
Scurr, Kenneth R., House, 121 S. Washington Ave., Pierre, 93000780

Hyde County

Archeological Site No. 39HE331 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Holabird vicinity, 93000793

McCook County

Archeological Site No. 39MK12 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Bridgewater vicinity, 93000796

McPherson County

Archeological Site No. 39MP3 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Long Lake vicinity, 93000795

Meade County

Archeological Site No. 39MD82 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Sturgis vicinity, 93000797
Archeological Site No. 39MD20 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Tilford vicinity, 93000798
Archeological Site No. 39MD81 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Sturgis vicinity, 93000818

Pennington County

Quinn, Michael, House, 728 Sixth St., Rapid City, 93000782

Potter County

Archeological Site No. 39PO205 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Gettysburg vicinity, 93000799
Archeological Site No. 39PO63 (Prehistoric Rock Art of South Dakota MPS), Address Restricted, Gettysburg vicinity, 93000800

Sully County

Snyder, L.E., House, Jct. of Cedar and Sixth Sts., Onida, 93000784

TENNESSEE

Cumberland County

Cumberland Mountain School, W. side, Old US 127 N., 2 mi. N. of Crossville, Crossville vicinity, 93000779

TEXAS

Bell County

Kyle Hotel, 111 Main St., Temple, 93000772

Dawson County

Lamesa Farm Workers Community Historic District, Jct. of US 87 and US 180, Los Ybanez, 93000771

WASHINGTON

King County

Allentown Shell Midden, Address Restricted, Tukwila vicinity, 93000738

WISCONSIN

Dane County

Moore Mound Group (Late Woodland Stage MPS), Address Restricted, Dunn, 93000809

Iowa County

Carden Rockshelter (Wisconsin Indian Rock Art Sites MPS), Address Restricted, Brigham, 93000808

Price County

Deadman Slough, Address Restricted, Flambeau vicinity, 93000750

Walworth County

Grace and Pearl Historic District, Roughly bounded by Pearl, Park, Dougall, Grace and Martin Sts., Sharon, 93000810

In order to assist in its preservation, the commenting period for the following property has been shortened to two days.

IOWA

Black Hawk County

Cotton Theater, 103 Main St., Cedar Falls. 93000764.

[FR Doc. 93–17092 Filed 7–19–93; 8:45 am]

BILLING CODE 4310–70–M

INTERSTATE COMMERCE COMMISSION

Notice

[Docket No. AB–384X]

Delta Southern Railroad Co.—Abandonment Exemption—In Union County, AR, And Union Parish, LA

AGENCY: Interstate Commerce Commission.

ACTION: Notice of exemption.

SUMMARY: The Commission exempts from the prior approval requirements of 49 U.S.C. 10903–10904 the abandonment by Delta Southern Railroad Co. of its 28-mile line of railroad between milepost 525.9 near Huttig, in Union County, AR, and milepost 553.9 at or near Sterlington, in Union Parish, LA, subject to environmental and standard labor protective conditions.

DATES: This exemption will be effective on August 19, 1993, unless a formal expression of intent to file an offer of financial assistance is filed. Formal expressions of intent to file on offer of financial assistance under 49 CFR 1152.27(c)(2) must be filed by July 30, 1993, petitions to stay must be filed by August 4, 1993, requests for a public use condition conforming to 49 CFR 1152.28(a)(2) must be filed by August 9, 1993, and petitions to reopen must be filed by August 16, 1993.

ADDRESSES: Send Pleadings referring to Docket No. AB–384X to (1) Office of the Secretary, Case Control Branch, Interstate Commerce Commission, Washington, DC 20423, and (2) Mary Todd Carpenter, Gerst, Heffner, Carpenter & Precup, 1700 K Street, NW., Suite 1107, Washington DC 20006.

FOR FURTHER INFORMATION CONTACT: Donald J. Shaw (202) 927–5610 [TDD for hearing impaired: (202) 927–5721.]

SUPPLEMENTARY INFORMATION: Additional information is contained in the Commission's decision. To purchase a copy of the full decision, write to, call, or pick up in person from Dynamic Concepts, Inc., Room 2229, Interstate Commerce Commission Building, Washington, DC 20423. Telephone: (202) 289–4357/4359. [Assistance for the hearing impaired is available through TDD service (202) 927–5721.]

Decided: July 12, 1993.

By the Commission, Chairman McDonald, Vice Chairman Simmons and Commissioners Phillips, Philbin and Walden.

Sidney L. Strickland, Jr.,

Secretary.

[FR Doc. 93–17151 Filed 7–19–93;8:45am]

BILLING CODE 7035–01–P

DEPARTMENT OF LABOR

Employment and Training Administration

Investigations Regarding Certifications of Eligibility to Apply for Worker Adjustment Assistance

Petitions have been filed with the Secretary of Labor under section 221(a) of the Trade Act of 1974 ("the Act") and are identified in the Appendix to this notice. Upon receipt of these petitions, the Director of the Office of Trade Adjustment Assistance, Employment and Training Administration, has instituted investigations pursuant to section 221(a) of the Act.

The purpose of each of the investigations is to determine whether the workers are eligible to apply for adjustment assistance under title II, chapter 2, of the Act. The investigations will further relate, as appropriate, to the determination of the date on which total or partial separations began or threatened to begin and the subdivision of the firm involved.

The petitioners or any other persons showing a substantial interest in the subject matter of the investigations may request a public hearing, provided such request is filed in writing with the Director, Office of Trade Adjustment Assistance, at the address shown below, not later than July 30, 1993.

Interest persons are invited to submit written comments regarding the subject matter of the investigations to the Director, Office of Trade Adjustment Assistance, at the address shown below, not later than July 30, 1993.

The petitions filed in this case are available for inspection at the Office of the Director, Office of Trade Adjustment Assistance, Employment and Training Administration, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210.

Marvin M. Fooks,

Director, Office of Trade Adjustment Assistance.

APPENDIX

Petitioner (Union/Workers/Firm)	Location	Date received	Date of petition	Petition No.	Articles produced
Bear Creek, Operations, Inc (Wkrs)	Medford, OR	07/06/93	06/22/93	28,837	Hand Woven Baskets.
Ranno Electro Plating Corp (Wkrs)	Saddle Brook, NJ	07/06/93	06/24/93	28,838	Chrome Plating.
General Dynamics (Wkrs)	Fort Worth, TX	07/06/93	02/08/93	28,839	Sheet Metal Parts.
Mulberry Phosphates, Inc (Wkrs)	Mulberry, FL	07/06/93	06/22/93	28,840	Phosphaste Fertilizer.
Piney Point Phosphate, Inc (Wkrs)	Palmetto, FL 34221	07/06/93	06/22/93	28,841	Phosphaste Fertilizer.
Thomas Cort, Inc. (UFCW)	Philadelphia, PA	07/06/93	06/24/93	28,842	Women's Leather Shoes.
Julie Fashions II (ILGEU)	Tuscarora, PA	07/06/93	06/24/93	28,843	Ladies' Sportswear.
Parsons Industrial Diamond (Wkrs)	West Hartford, CT	07/06/93	06/15/93	28,844	Diamond Products.
Michigan Capsule, Inc (co)	Detroit, MI	07/06/93	06/18/93	28,845	Veterinary Capsules.
Liberty Optical (Wkrs)	Newark, NY	07/06/93	06/21/93	28,846	Frames for Glasses.

APPENDIX—Continued

Petitioner (Union/Workers/Firm)	Location	Date received	Date of petition	Petition No.	Articles produced
James River Corp (Wkrs)	Sunnyside, WA	07/06/93	06/15/93	28,847	Paperboard Packaging to Process Food.
Aluminum Company of America (Wkrs).	Newburgh, IN	07/06/93	06/23/93	28,848	Aluminum Ingot and Sheets.
Trimac Transportation Services (Wkrs).	Riddle, OR	07/06/93	06/17/93	28,849	Haul Ore (Nickel).
Russ Togs, Inc (ILGWU)	Long Island City, NY	07/06/93	06/22/93	28,850	Ladies' Sportswear.

[FR Doc. 93–17170 Filed 7–19–93; 8:45 am]
BILLING CODE 4510–30–M

[TA–W–28, 158]

Northrup Corp. Norwood, MA; Negative Determination Regarding Application for Reconsideration

By an application dated June 2, 1993, one of the petitioners requested administrative reconsideration of the subject petition for trade adjustment assistance (TAA). The denial notice was signed on May 4, 1993 and published in the **Federal Register** on May 25, 1993 (58 FR 30071).

Pursuant to 29 CFR 90.18(c) reconsideration may be granted under the following circumstances:

(1) If it appears on the basis of facts not previously considered that the determination complained of was erroneous;

(2) if it appears that the determination complained of was based on a mistake in the determination of facts not previously considered; or

(3) if in the opinion of the Certifying Officer, a misinterpretation of facts or of the law justified reconsideration of the decision.

The investigation findings show that the Northrup workers produce gyroscopes for missiles.

The Department's denial was based on the fact the "contributed importantly" test of the Worker Group Requirements of the Trade Act of 1974 were not met for workers producing gyroscopes in the period relevant to the worker petition.

Its claimed that workers in Department 4817 at the Norwood plant lost their jobs because imported components for gyroscopes were supplied to Northrup by one of Northrup's suppliers.

The findings show that only a portion of the microsyns manufactured by the Northrup supplier in question is performed in Mexico while the final assembly is done in Minnesota. This import connection is too remote to provide a basis for a worker group certification. The findings further show that the number of subassemblies from Minnesota has declined in each of the last three years.

Other findings show that worker separations at Northrup were not the result of increased imports but rather the result of reduced government spending on missiles and other non trade factors.

Conclusion

After review of the application and investigative findings, I conclude that there has been no error or misinterpretation of the law or of the facts which would justify reconsideration of the Department of Labor's prior decision. Accordingly, the application is denied.

Signed at Washington, DC, this 8th day of July 1993.

Stephen A. Wandner,

Deputy Director, Office of Legislation & Actuarial Service, Unemployment Insurance Service.

[FR Doc. 93–17169 Filed 7–19–93; 8:45 am]
BILLING CODE 4510–30–M

Pension and Welfare Benefits Administration

[Application No. D–8896, et al.]

Proposed Exemptions; American Express Co. and Affiliates, et al.

AGENCY: Pension and Welfare Benefits Administration, Labor.

ACTION: Notice of Proposed Exemptions.

SUMMARY: This document contains notices of pendency before the Department of Labor (the Department) of proposed exemptions from certain of the prohibited transaction restriction of the Employee Retirement income Security Act of 1974 (the Act) and/or the Internal Revenue Code of 1986 (the Code).

Written Comments and Hearing Requests

All interested persons are invited to submit written comments or request for a hearing on the pending exemptions, unless otherwise stated in the Notice of Proposed Exemption, within 45 days from the date of publication of this **Federal Register** Notice. Comments and request for a hearing should state: (1) The name, address, and telephone number of the person making the comment or request, and (2) the nature of the person's interest in the exemption and the manner in which the person would be adversely affected by the exemption. A request for a hearing must also state the issues to be addressed and include a general description of the evidence to be presented at the hearing. A request for a hearing must also state the issues to be addressed and include a general description of the evidence to be presented at the hearing.

ADDRESSES: All written comments and request for a hearing (at least three copies) should be sent to the Pension and Welfare Benefits Administration, Office of Exemption Determinations, room N–5649, U.S. Department of Labor, 200 Constitution Avenue NW., Washington, DC 20210. Attention: Application No. stated in each Notice of Proposed Exemption. The applications for exemption and the comments received will be available for public inspection in the Public Documents Room of Pension and Welfare Benefits Administration, U.S. Department of Labor, room N–5507, 200 Constitution Avenue NW., Washington, DC 20210.

Notice to Interested Persons

Notice of the proposed exemptions will be provided to all interested persons in the manner agreed upon by the applicant and the Department within 15 days of the date of publication in the **Federal Register**. Such notice shall include a copy of the notice of proposed exemption as published in the **Federal Register** and shall inform interested persons of their right to comment and to request a hearing (where appropriate).

SUPPLEMENTARY INFORMATION: The proposed exemptions were requested in applications filed pursuant to section 408(a) of the Act and/or section 4975(c)(2) of the Code, and in accordance with procedures set forth in 29 CFR part 2570, subpart B (55 FR

32836, 32847, August 10, 1990). Effective December 31, 1978, section 102 of Reorganization Plan No. 4 of 1978 (43 FR 47713, October 17, 1978) transferred the authority of the Secretary of the Treasury to issue exemptions of the type requested to the Secretary of Labor. Therefore, these notices of proposed exemption are issued solely by the Department.

The applications contain representations with regard to the proposed exemptions which are summarized below. Interested persons are referred to the applications on file with the Department for a complete statement of the facts and representations.

American Express Company and Affiliates Located in New York, New York

[Application No. D–8896]

Proposed Exemption

The Department is considering granting an exemption under the authority of section 408(a) of the Act and section 4975(c)(2) of the Code and in accordance with the procedures set forth in 29 CFR part 2570, subpart B (55 FR 32836, 32847, August 10, 1990). If the exemption is granted, American Express Company and each of its wholly-owned subsidiaries (collectively, AMEX) shall not be precluded from functioning as a "qualified professional asset manager" pursuant to Prohibited Transaction Exemption 84–14 (PTE 84–14, 49 FR 9494, March 13, 1984) solely because of a failure to satisfy Section I(g) of PTE 84–14, as a result of affiliation with E.F. Hutton & Company, Inc. (Hutton) and Shearson Lehman Brothers, Inc. (Shearson), formerly Shearson Lehman Hutton, Inc.

Effective Date: This exemption, if granted, will be effective as of January 13, 1988, the date on which Hutton was acquired by Shearson.

Summary of Facts and Representations

1. Shearson is a wholly-owned subsidiary of Shearson Lehman Brothers Holdings Inc. (Shearson Holdings), 100 percent of the issued and outstanding common stock of which is owned by American Express Company.[1] American Express is a publicly-owned company whose stock is traded on the New York Stock Exchange. American Express and its subsidiaries form a diversified financial and travel services company.

On January 13, 1988, over 90 percent of the stock of E.F. Hutton Group Inc. (Hutton Group), the parent company of Hutton, was tendered to SLBP Acquisition Corporation (SLBP), a wholly-owned subsidiary of Shearson Holdings, pursuant to an Agreement and Plan of Merger (Merger Agreement) dated December 2, 1987, as amended on December 28, 1987, entered into among Shearson Holdings, SLBP, and the Hutton Group. On January 21, 1988, as permitted by the terms of the Merger Agreement, SLBP assigned its right to purchase those shares so accepted to Shearson and Shearson purchased the shares. As a result of the acquisition of the Hutton Group stock, Shearson controls the Hutton Group and indirectly controls Hutton.

2. On May 2, 1985, Hutton entered a plea of guilty (the Guilty Plea) to an Information filed in the United States District Court for the Middle District of Pennsylvania. The Information charged that Hutton had violated the federal mail and wire fraud statutes in connection with its handling of certain checking accounts it maintained for the deposit of its own funds during the period from July 1, 1980 to February 16, 1982. The applicant represents that as a result of the Guilty Plea, Hutton agreed to pay, and has paid, a criminal fine of $2,000,000 plus $750,000 to defray the costs of the government investigation. Hutton further agreed to establish, and has established, a restitution program for the benefit of commercial banks that may have been damaged by its actions. None of the acts alleged in the Information, however, involved funds or securities owned by any investment advisory or brokerage clients of Hutton or any employee benefit plan for which Hutton or any affiliate is a party in interest.

3. On May 16, 1988, Hutton entered a plea of guilty (the Providence Plea) in the United States District Court for the District of Rhode Island on two counts of violating the Bank Secrecy Act and one count of conspiracy to violate that Act. The applicant represents that Hutton agreed to pay, and has paid, an aggregate fine of $1,010,000 as a result of the Providence Plea. The Information filed by the government in connection with the Providence Plea alleges that the conduct of the two brokers, formerly employed at Hutton-Providence, was in violation of the Bank Secrecy Act. The Bank Secrecy Act requires the filing of a Currency Transaction Report, under certain circumstances, if more than $10,000 in cash is deposited with a financial institution. The applicant represents that the brokers' unlawful conduct occurred primarily in the period from 1982 to 1983, and no such conduct transpired later than October 1984—more than three years before Shearson acquired its majority interest in Hutton.

4. On March 3, 1989, George Inserra, a broker employed by Shearson, pled guilty to charges of securities fraud, soliciting commissions in connection with an employee benefit plan, and filing a false income tax return. On the same date, John Inserra, also employed by Shearson as a broker, pled guilty to securities fraud conspiracy. Further, on May 1, 1989, the Department filed a complaint in the U.S. District Court for the Northern District of New York alleging that Shearson, among others, and its agents, misused assets of three New York Teamsters Funds (the Funds) to benefit themselves and others through a stock parking scheme and indirect fee arrangements with banks, and that Shearson mishandled the Funds' cash balances and manipulated stock purchases. On September 19, 1990, Shearson and the Department executed a settlement agreement (the Settlement) regarding the Department's complaint. Without admitting or denying the Department's allegations, Shearson agreed pursuant to the Settlement to make a payment to the affected Funds.

5. The applicant states that the Inserras had left the employment of Shearson in October 1985, long before the guilty pleas were entered in March 1989. The applicant further represents that although the Securities and Exchange Commission (SEC) instituted proceedings against Shearson as a result of the Inserras' activities, Shearson was not charged with any criminal offenses. Shearson settled the SEC proceedings by accepting a censure by the SEC for failure to exercise reasonable supervision of the Inserras. As part of the settlement with the SEC, Shearson agreed to institute revised policies and procedures recommended by an independent consultant to prevent the kinds of defalcations engaged in by the Inserras. The applicant represents that the independent consultant thoroughly analyzed Shearson's operations and recommended systemic changes designed to preclude the types of unsupervised actions committed by the Inserras.

[1] On March 13, 1993, Shearson entered into an asset purchase agreement with Primerica Corporation (Primerica) and its wholly-owned subsidiary, Smith Barney, providing for the sale to Smith Barney and its designated affiliates of substantially all of the assets of the Shearson Lehman Brothers Division of Shearson and the SLB Asset Management Division of Shearson. Thus, this exemption will not be available with respect to the Shearson Lehman Brothers Division and the SLB Asset Management Division of Shearson. However, the exemption will be available to Lehman Brothers, Inc. and other components of Shearson Holdings which are not part of the Primerica sale.

6. AMEX represents that although none of the unlawful conduct involved Hutton's investment management activities or any plans covered by the Act, the criminal activities described above could preclude each component of AMEX, as an affiliate of Hutton, from serving as a "qualified professional asset manager" (QPAM) pursuant to sections I(g) and V(d) of PTE 84–14. Similarly, AMEX represents that the guilty pleas of the Inserras could preclude each component of AMEX, as an affiliate of Shearson, from serving as a QPAM, pursuant to sections I(g) and V(d) of PTE 84–14. Section I(g) of PTE 84–14 precludes a person who otherwise qualifies as a QPAM from serving as a QPAM if such person or an affiliate[2] thereof has within the 10 years immediately preceding the transaction been either convicted or released from imprisonment as a result of certain criminal activity. AMEX requests an exemption to enable AMEX components to function as QPAMs despite their failure to satisfy section I(g) of PTE 84–14 due to affiliation with Hutton and Shearson and the pleas entered by Hutton and the Inserras.

7. The proposed exemption is requested on behalf of AMEX wholly-owned subsidiaries that are banks, insurance companies, registered investment advisers, or savings and loan associations which are, or may become, eligible to serve as QPAMs. AMEX components are engaged in providing a variety of travel-related, investment, international banking, information, and investors' diversified financial services, on a global basis. The proposed exemption would also apply to wholly-owned AMEX subsidiaries that are acquired in the future. The transactions covered by the proposed exemption would include the full range of transactions that can be executed by investment managers who qualify as QPAMs pursuant to PTE 84–14.

AMEX represents that the requested exemption is not relevant to most transactions involving the purchase/sale of securities, securities lending, investment in short-term instruments (such as repurchase agreements and bankers' acceptances) and certain residential mortgage pools, since each such transaction is covered by other class exemptions. However, AMEX represents that the requested exemption, to enable access to the exemptive relief afforded by PTE 84–14, is needed for AMEX components to engage in various transactions involving investments in real estate, mortgages, and commodities, between plans over which AMEX components have investment discretion and parties in interest with respect to such plans.

8. AMEX represents that various measures have been taken by Hutton and Shearson, since the Hutton pleas and the Inserra pleas, to ensure that conduct such as that involved in such pleas will not recur. Among the steps taken to prevent such conduct in the future are the following:

(A) Hutton has acted to recompense its depository banks for any harm which may have been caused by the illegal acts involved in the Guilty Plea and the Providence Plea.

(B) Hutton initiated changes in its organizational structure and management practices: Realignment and centralization of financial operations, computerized enhancement of Hutton's headquarters to monitor activity at the branch and regional levels, and instruction of all employees on the procedural revisions.

(C) Hutton adopted recommendations made by former Judge Griffin Bell, U.S. Court of Appeals for the Fifth Circuit,[3] who was retained to conduct an independent inquiry into the cash management practices to which Hutton pled guilty. The changes made pursuant to Judge Bell's recommendation include restructuring of the financing, financial control, operations and general counsel functions, establishment of an independent audit committee with full access to Hutton's chief executive officer and board of directors, and development of a corporate code of ethics, supplemented by educational and monitoring programs, in conjunction with the Ethics Resource Center in Washington, DC.

(D) In late December 1987, following the announcement of Shearson's merger with Hutton Group, Shearson retained outside counsel to investigate and advise with respect to Hutton's compliance with the Bank Secrecy Act. The investigation revealed certain unreported currency transactions at Hutton branch offices prior to Shearson's acquisition of Hutton. AMEX represents that the United States Attorney for the Southern District of New York recently completed its inquiry into possible legal violations at Hutton branch offices and has indicated it will take no further action.

(E) In connection with Shearson's application to the SEC for an exemption from the provisions of section 9(a) of the Investment Company Act of 1940, Shearson agreed to retain independent auditors: (i) To confirm that the Shearson currency reporting procedures are in place in each former Hutton branch office; (ii) to review the currency reporting procedures to determine whether they are reasonably designed to ensure compliance with the Bank Secrecy Act and whether changes are needed to ensure ongoing compliance; and (iii) to report the results of the review to Shearson. AMEX represents that upon completion of the auditor's review, Shearson submitted the report and recommendations to the SEC, together with a report by Shearson setting forth the action proposed for implementation of the recommendations. AMEX states that such proposed action has been taken.

(F) As of February 8, 1988, as part of the consolidation of the Hutton branch offices into the Shearson branch office system, each Hutton branch adopted the same internal procedures for processing currency transactions as those followed by Shearson. AMEX represents that such procedures prevent the kind of irregularities involved in the Providence Plea. AMEX states that as additional safeguards, the Shearson procedures forbid all Shearson employees from taking possession of currency for a customer, escorting a customer to a financial institution to convert currency, and/or advising a customer as to how to "structure" a transaction with a financial institution in order to avoid reporting requirements under the Currency Transaction Reporting Act.

(G) Although the SEC instituted proceedings against Shearson as a result of the Inserras' activities, Shearson was not charged with any criminal offense, and Shearson expeditiously settled the SEC proceedings by accepting a censure by the SEC for failure to reasonably supervise the Inserras and the branch manager overseeing the Inserras. As part of the settlement, Shearson committed to institute revised policies and procedures recommended by an independent consultant and designed to prevent the kinds of defalcations engaged in by the Inserras.

9. AMEX asserts that failure to grant the requested exemption will prohibit employee benefit plans for which AMEX components act as investment managers from engaging in transactions with parties in interest that would otherwise be permitted under PTE 84–14, and will cause the plans to forego

[2] For purposes of section I(g) of PTE 84–14, an "affiliate" of a person is defined, in relevant part, as "any person directly or indirectly, through one or more intermediaries, controlling, controlled by, or under common control with the person . . ." (PTE 84–14 section V(d)). As such, under this definition, American Express and all its subsidiaries (collectively, AMEX) would be considered affiliates of Shearson and Hutton.

[3] Judge Bell has also served as Attorney General of the United States.

attractive investment opportunities. AMEX notes that many of its components would be deprived of their abilities to offer and render the full panoply of specialized investment advisory services demanded by employee benefit plans covered by the Act. AMEX represents that neither of the Hutton pleas involved any of the AMEX components in any way, and thus do not impair the abilities of AMEX components to serve as independent investment managers. AMEX states that the procedures adopted by Hutton and Shearson, discussed above, to prevent in the future the conduct which gave rise to the Hutton pleas, support the inclusion of Shearson, the successor in interest to Hutton, among the AMEX components permitted to function as QPAMs.

With respect to the conduct and pleas of the Inserras, AMEX points out that the Inserras were not employees of Shearson at the time they pled guilty to the charges against them, and Shearson was never charged with any criminal offense in connection with their activities. AMEX represents that the ability of Shearson or any other AMEX component to act as a QPAM has not been affected by the activities of the Inserras, which were neither authorized nor condoned by Shearson or any other AMEX component.

10. In summary the applicant represents that the proposed exemption satisfies the criteria of section 408(a) of the Act for the following reasons: (A) Hutton's criminal activity occurred prior to acquisition by Shearson, and the activities of the Inserras did not involve any criminal charges against Shearson; (B) Both Hutton and Shearson have undertaken substantial reforms and put in place procedures designed to prevent any recurrence of the criminal activity; (C) AMEX components will be able to engage in a broader variety of investment services on behalf of employee benefit plans which demand such services; (D) The ability of AMEX components to act as QPAMs has not been impaired by criminal acts that were neither authorized nor condoned by Shearson or any other AMEX component; and (E) The other conditions of PTE 84–14, combined with the procedures adopted by Hutton and Shearson, afford ample protection of the interests of participants and beneficiaries of employee benefit plans.

For Further Information Contact: Ronald Willett of the Department, telephone (202) 219–8881. (This is not a toll-free number.)

Heritage Pullman Bank Employees' Profit Sharing Plan (the Plan) Located in Chicago, Illinois

[Application No. D–9276]

Proposed Exemption

The Department is considering granting an exemption under the authority of section 408(a) of the Act and section 4975(c)(2) of the Code and in accordance with the procedures set forth in 29 CFR part 2570, subpart B (55 FR 32836, August 10, 1990). If the exemption is granted, the restrictions of sections 406(a), 406(b)(1) and (b)(2) of the Act and the sanctions resulting from the application of section 4975 of the Code, by reason of section 4975(c)(1)(A) through (E) shall not apply to the proposed sale (the Sale) by the Plan of certain notes (collectively, the Notes) to Heritage Pullman Bank (Heritage Pullman), a party in interest with respect to the Plan.

This proposed exemption is conditioned upon the following requirements: (1) The Sale is a one-time cash transaction; (2) the Plan is not required to pay any commissions, fees, or other expenses in connection with the Sale; (3) the Notes are appraised by a qualified, independent appraiser; and (4) the sales price for the Notes is based upon an amount representing the greater of each Note's outstanding principal balance or each Note's fair market value as of the date of the Sale.

Summary of Facts and Representations

1. The Plan is a profit sharing plan with total assets of $2,499,651.19 as of November 13, 1992. The Plan is sponsored by Heritage Pullman and, as of November 25, 1992, the Plan had 123 participants.

2. Among the assets of the Plan are two Notes (Note #1 and Note #2). Pursuant to an agreement in 1973, the Notes were transferred from Heritage Pullman into the Heritage Pullman Bank Retirement Plan (the Retirement Plan), a plan in which several independent banks participated. In 1987, the Retirement Plan was terminated, and the Notes became assets of the Plan.

3. James A. and Robbie J. Abbot have been the obligors under Note #1 since its inception on April 12, 1973. Note #1 is secured by a first mortgage on property located at 15016 South Vine Street, Harvey, Illinois. Note #1 had an initial principal amount of $28,000 and a twenty-five (25) year amortization schedule at an interest rate of 7.9 percent per annum. Note #1 has a delinquent payment history and is regularly one month in arrears. As of June 28, 1993, Note #1 had an outstanding principal balance of $10,556.99.

4. George Evans (Evans) has been the obligor under Note #2 since its inception on May 16, 1973. Note #2 is secured by a first mortgage on property located at 11840 South Princeton Avenue, Chicago, Illinois. Note #2 had an initial principal amount of $22,000 and a twenty-five (25) year amortization schedule at an interest rate of 7.9 percent per annum. Payments were made through March 1, 1989, and as of June 28, 1993, Note #2 had an outstanding principal balance of $13,222.33 and outstanding accrued interest in the amount of approximately $4178. Evans is presently involved in Chapter 13 bankruptcy proceedings in the U.S. Bankruptcy Court for the Northern District of Illinois.

5. In order that the Plan can avoid further administrative and legal costs associated with the delinquent and non-performing loans, Heritage Pullman requests an administrative exemption from the Department to purchase the Notes from the Plan.[4] Accordingly, Heritage Pullman proposes to acquire the Notes for a cash amount representing the greater of each Note's outstanding principal balance or each Note's fair market value on the date of the Sale. The Plan will not be required to pay any commissions, fees or other expenses in connection with these transactions.

6. The Notes have been valued by Mr. Donald L. MacNeil, President of Heritage Mortgage Company (Heritage Mortgage). Heritage Mortgage has been a mortgage banker for ten (10) years and has particular expertise relative to the origination and sale of mortgage loans in the greater metropolitan Chicago area. A Fannie Mae seller/servicer,

Heritage Mortgage actively sells loans to a wide variety of secondary market wholesalers. Heritage Mortgage represents that they are unrelated to and independent of Heritage Pullman. In an appraisal report dated March 8, 1993, Mr. MacNeil states that the present market value of each of the Notes would be eighty (80) percent of each Note's outstanding balance resulting in an aggregate amount of $19,023.45.

In an April 22, 1993 letter updating his appraisal report, Mr. MacNeil describes certain factors he considered in determining that the Notes should be

[4] The Department notes that the decisions to acquire and hold the Notes are governed by the fiduciary responsibility requirements of part 4, Subtitle B, title I of ERISA. In this regard, the Department herein is not proposing relief for any violations of part 4 of the Act which may have arisen as a result of the acquisition and holding of the Notes.

discounted twenty (20) percent. They are as follows: The unusually small size of the loans, the fact that the loans are delinquent or in default, and the fact that the properties are located in distressed markets.

On the basis of these factors, Mr. MacNeil again concludes that each of the Notes are worth eighty (80) percent of each Note's outstanding balances. Because the outstanding balance of each of the Notes is greater than Mr. MacNeil's determination of each Note's fair market value, the proposed selling price of the Notes will be the aggregate of the Notes' outstanding balances or $23,779.32.

7. In summary, it is represented that the proposed transactions will satisfy the statutory criteria for an exemption under section 408(a) of the Act because: (a) The Sale will represent a one-time cash transaction; (b) the Plan will not be required to pay any commissions, fees, or other expenses in connection with the Sale; (c) the Notes have been appraised by a qualified, independent appraiser; and (d) the sales price for the Notes will be based upon an amount representing the greater of each Note's outstanding principal balance or each Note's fair market value as of the date of the Sale.

For Further Information Contact: Ms. Kathryn Parr of the Department, telephone (202) 219–8971. (This is not a toll-free number.)

In the Matter of ALLTEL Corporation (ALLTEL), ALLTEL Corporation Pension Plan and Trust (the ALLTEL Pension Plan), ALLTEL Corporation Profit-Sharing Plan and Trust (the ALLTEL Profit-Sharing Plan), Allied Telephone Company Profit-Sharing Plan (the Allied Profit-Sharing Plan), Profit-Sharing Plan for Employees of Systematics, Inc. (the Systematics Profit-Sharing Plan), SLT Communication, Inc. Retirement Plan and Trust (the SLT Retirement Plan; collectively, the Plans)

ALLTEL Corp., et al. Located in Little Rock, AR

[Application Nos. D–9362, D–9363, D–9364, D–9365, D–9366]

Proposed Exemption

The Department is considering granting an exemption under the authority of section 408(a) of the Act and section 4975(c)(2) of the Code and in accordance with the procedures set forth in 29 CFR part 2570, subpart B (55 FR 32836, 32847, August 10, 1990). If the exemption is granted, the restrictions of sections 406(a) and 406(b)(2) of the Act and the sanctions resulting from the application of section 4975 of the Code, by reason of section 4975(c)(1)(A) through (D) of the Code shall not apply to the proposed consolidation of certain assets of the Plans into a new master trust sponsored by ALLTEL (the Master Trust) provided that the following conditions are satisfied: (a) The fair market value of the assets of each Plan shall upon completion of the transfer to the Master Trust equal the fair market value of said assets immediately preceding the transfer, (b) other than cash, only assets which are traded on a recognized securities exchange will be subject to the proposed transaction, and (c) the Plans' trustee will not receive any fees or commissions for making the transfers from the individual Plans to the Master Trust.

Summary of Facts and Representations

1. ALLTEL is a Delaware Corporation with its principal corporate offices in Little Rock, Arkansas. ALLTEL and its subsidiaries are engaged in various aspects of the communications business. The Plans are maintained by ALLTEL or a sponsor within the ALLTEL controlled group of corporations. The ALLTEL Pension Plan and the SLT Retirement plan are defined benefit plans. The remaining plans are defined contribution plans.

2. The estimated number of participants in each of the Plans as of February 22, 1993 is:

a. ALLTEL Pension Plan: 8,410
b. ALLTEL Profit-Sharing Plan: 4518
c. Allied Profit-Sharing Plan: 730
d. Systematics Profit-Sharing Plan: 4,508
e. SLT Retirement Plan: 270

3. The approximate aggregate fair market value of the total assets of each of the Plans as of December 31, 1991 is:

a. ALLTEL Pension Plan: $281,573,896
b. ALLTEL Profit-Sharing Plan: $35,132,905
c. Allied Profit-Sharing Plan: $68,501,901
d. Systematics Profit-Sharing Plan: $45,056,924
e. SLT Retirement Plan: $6,500,533

4. NationsBank of Texas, N.A., a national banking association (NationsBank), is the Trustee for all of the Plans and will also serve as Trustee for the Master Trust. ALLTEL proposes that each of the Plans will invest in the Master Trust by transferring assets of the Plans, whether in cash or in kind, directly to the Master Trust and receiving units of participation from the Master Trust that reflect the allocation of each Plan's assets among the Master Trust investment funds.

5. The Master Trust will consist of two or more separate pooled investment funds. One of the funds, consisting primarily of shares of ALLTEL stock, which is listed and traded on the New York and Pacific Stock Exchanges, shall be known as the "ALLTEL Stock Fund". A committee appointed by the Board of Directors of ALLTEL (the Pension Investment Committee) will determine what other investment fund(s) shall be contained within the Master Trust and NationsBank will establish such funds pursuant to the direction of the Pension Investment Committee. Each investment fund will be managed by an investment manager appointed by the Pension Investment Committee. The assets of each Plan forming part of the Master Trust will be invested according to the instructions of the Pension Investment Committee.

NationsBank, acting as trustee, will transfer assets from the individual Plans to the Master Trust only at the direction of the Pension Investment Committee. Other than cash, only assets which are traded on a recognized securities exchange will be subject to transfer to the Master Trust. Assets of an individual Plan which are not transferred to the Master Trust will remain in that Plan. The value of Plan assets, other than cash, transferred under the proposed exemption transaction will be equal to the value of such assets on the recognized securities exchange on which those assets usually trade. The value of the securities transferred will be based on the prices of the securities on the exchange at the close of trading on the last day that the securities are traded on the exchange immediately preceding the transfer to the Master Trust.

6. The value of each Plan's assets will be the same immediately after a transfer made under the proposed exemption transaction as immediately prior to the transfer.

7. The applicant represents that no more than 10% of the fair market value of the assets of either the ALLTEL Pension Plan or the SLT Retirement Plan will consist of holdings of ALLTEL common stock (either directly, or indirectly through the Master Trust).[5]

8. The applicant represents that NationsBank will not receive any fees or commissions for making the transfers from the individual Plans to the Master Trust.

9. The applicant represents that the establishment of the Master Trust will result in a reduction in the aggregate of

[5] With respect to the defined contribution plans, the plan documents for the ALLTEL Profit-Sharing Plan and the Allied Profit-Sharing Plan provide that each Plan may have up to 100% of its assets invested in qualifying employer securities. The Systematics Profit-Sharing Plan specifies that up to 75% of plan assets may be invested in qualifying employer securities.

fees paid by each of the Plans to NationsBank as trustee. In addition, the applicant represents that the existence of the Master Trust will permit more efficient and economical administration of the collective investment of the assets involved.

10. In summary, the applicant represents that the proposed transaction satisfies the exemption criteria set forth in section 408(a) of the Act because: (1) The fair market value of each Plan's assets will remain unchanged after the transfer of the assets from the individual Plans to the Master Trust; (2) other than cash, only assets which are traded on a recognized securities exchange will be subject to transfer to the Master Trust; (3) the Master Trust allows for efficiencies and economies of scale that will result in greater net investment return for the Plans; and (4) the Master Trust will result in a reduction of fees paid by each of the Plans to NationsBank as Trustee.

For Further Information Contact: Ms. Virginia Miller of the Department, telephone (202) 219–8971. (This is not a toll-free number.)

Analex Corporation (Analex), Analex Corporation Retirement Plan (the Plan) Located in Brookpark, OH

[Application No. D–9371]

Proposed Exemption

The Department is considering granting an exemption under the authority of section 408(a) of the Act and section 4975(c)(2) of the Code and in accordance with the procedures set forth in 29 CFR part 2570, subpart B (55 FR 32836, 32847, August 10, 1990). If the exemption is granted, the restrictions of sections 406(a), 406(b)(1) and (b)(2) of the Act and the sanctions resulting from the application of section 4975 of the Code, by reason of section 4975(c)(1)(A) through (E) of the Code shall not apply to the proposed series of loans (the Loans) to be made, during a period of five years, from the Plan to Analex (the Employer), the Plan's sponsor and, as such, a party in interest with respect to the Plan; subject to the following conditions:

(1) All terms and conditions of the Loans are at least as favorable to the Plan as those which the Plan could obtain in an arm's-length transaction with an unrelated party;

(2) The amount of the Plan's assets involved in the Loans does not exceed 15% of the Plan's total assets at any time during the transaction; (3) The Loans will at all times be secured by collateral which is valued at not less than 200% of the aggregate balance of all outstanding Loans from the Plan to the Employer;

(4) Prior to each disbursement under the Loan agreement, an independent, qualified fiduciary must determine on behalf of the Plan that the Loans are in the best interests of the Plan as an investment for the Plan's portfolio, and protective of the Plan and its participants and beneficiaries;

(5) The independent, qualified fiduciary will conduct a review of the terms and conditions of the exemption and the Loans, including the applicable interest rate, the sufficiency of the collateral, the financial condition of the Employer and compliance with the 15% of Plan assets maximum loan amount, prior to approving each disbursement under the Loan agreement;

(6) The fiduciary will monitor the Loans throughout the exemption to ensure compliance with the terms and conditions of the exemption and the Loans; and

(7) The fiduciary is authorized to take whatever action is appropriate to protect the Plan's rights throughout the duration of the exemption and throughout the duration of any Loan granted pursuant to the exemption.

Temporary Nature of Exemption

The proposed exemption is temporary and, if granted, will expire five years from the date the exemption is granted with respect to the making of any Loan. Subsequent to the expiration of the exemption, the Plan may continue to hold any Loans originated during the proposed five year exemption period; provided that none of the Loans have a term exceeding five years.

Summary of Facts and Representations

1. The Plan is a profit sharing plan with a salary reduction feature. There were 382 participants as of March 3, 1993. As of December 31, 1992, the Plan's total assets were $8,729,264, with $3,211,057 representing Employer contributions and earnings thereon. The Plan provides for participant direction with respect to employee contributions to the Plan, and provides that an Administrative Committee will direct the investment of Employer contributions.

2. The Employer is a Nevada corporation maintaining its principal place of business in Cleveland, Ohio and operating in Florida, Colorado, Texas, California, Virginia and New Mexico. The Employer provides engineering services to commercial and government entities.

3. The Employer seeks an exemption to permit a series of Loans, over a five year period, from the Plan to the Employer. The Loans would be made solely from the Plan assets which are attributable to Employer contributions. The aggregate balance of all outstanding Loans at any one time will not exceed 15% of the fair market value of the Plan's total assets. Each Loan will provide for 60 equal monthly installments of principal and interest. The interest rate for the Loans will be no less than 2% above the prime rate published in the Wall Street Journal on the date of each Loan with a minimum interest rate of 7%. The interest rate for each Loan is a variable interest rate which will be adjusted on the first day of each quarter by the independent fiduciary for the Plan (see below).

4. The collateral securing each Loan will be a perfected security interest in accounts receivable (the Accounts Receivable) due to the Employer from its customers for engineering services rendered. Duvall & Associates, Inc. (D & A), an accounting firm in Dayton, Ohio, audited the Accounts Receivable on December 31, 1992. D & A represents that it is in the business of providing accounting, auditing, personal and business financial planning and tax and management services and that it provides accounting services to the Employer. D & A determined that the value of due and payable Accounts Receivable, as of December 31, 1992, was $3,159,003. Prior to the first disbursement under the Loan Agreement, another audit of the Accounts Receivable will be performed by D & A and the Accounts Receivable will be reevaluated by D & A on an annual basis.

5. Sorin & Sorin, Inc. (S & S), an independent accounting firm located in Cleveland, Ohio, has agreed to act as an independent fiduciary representing the interests of the Plan. S & S represents that it is qualified to act as an independent fiduciary with respect to the loan transaction and that it understands its responsibility as an ERISA fiduciary. S & S also represents that it has experience in the collection of loans secured by collateral. S & S maintains that it has no pre-existing business relationship with the Employer and that its income derived from the Employer and related parties, including the income derived from serving in the capacity of an independent fiduciary for this transaction, will not exceed 1% of S & S's gross annual income. S & S represents that it does not control, is not controlled by, and is not under common control with the Employer and is not otherwise affiliated with the Employer; and that no shareholder of the Employer has any ownership interest in S & S, nor does any shareholder of the Employer

hold a position as director or a senior management official of S & S.

6. In its capacity as independent fiduciary, S & S has reviewed various documents relating to the Loans and to the financial condition of the Employer. Those documents include, among other things, the Loan agreement and Promissory Note, the schedule of Accounts Receivable, and the audited financial statements of the Employer. In addition, S & S has reviewed the documents establishing the Plan, and the current allocation of the Plan's assets. After review of D & A's evaluation of the Accounts Receivable, S & S represents that it is satisfied that the Accounts Receivable would provide sufficient collateral for the proposed Loans. S & S has determined that the Loans are a prudent investment which will provide for diversification of the Plan's assets. S & S represents that the terms of the Loan agreement are commensurate with the terms that would be required by an independent financial institution on a similar loan and that the rate of interest represents fair market value.

As independent fiduciary, S & S represents that at no time while any Loan is outstanding will the value of the collateral securing the Loan be less than 200% of the aggregate balance of all outstanding Loans from the Plan to the Employer. The independent fiduciary will have the authority to call upon the Employer to pay down the amount of the Loans, or in the alternative, to require the Employer to provide additional collateral to secure any Loan in order to ensure that the 200% requirement will continue to be met throughout the duration of the exemption. Moreover, in the event the Employer defaults on any Loan, the independent fiduciary is empowered to execute and levy on the collateral securing the Loan. The Employer will execute any and all documentation needed to evidence and perfect the Plan's security interest in the collateral securing any Loan and the independent fiduciary will ensure that appropriate documentation is recorded to perfect the Plan's security interest.

7. As independent fiduciary, S & S represents that it will continuously monitor the Loans throughout the transaction to assure that the terms and conditions of the Loans and the exemption are complied with and the Loan payments are made when due. In reviewing compliance with the terms and conditions of the Loans, S & S will review, among other things, the interest rate, the sufficiency of the collateral, the financial condition of the Employer and the total amount of outstanding Loans. Each disbursement under the Loan agreement requires prior approval by S & S as independent fiduciary. S & S will not make disbursements unless it finds them to be appropriate and in the interest of Plan participants and beneficiaries. S & S represents that no term or condition of any Loan will be inconsistent with the terms and conditions described herein.

8. S & S has reviewed the Plan's asset portfolio for 1992 and concluded that the Loans are a prudent investment which will provide further diversification of the Plan's assets.

S & S represents that the Loans by the Plan will provide a better rate of return than the present short term and fixed term income investments that have been generated for the Plan over the last several years and will, therefore, benefit the participants and beneficiaries of the Plan. Furthermore, it is represented that the Plan will not bear any cost with respect to the Loan transaction. S & S maintains that it has reviewed the audited financial statements prepared for the Employer. Based on this review and the financial history of the Employer, S & S has concluded that with respect to the Loans, the Employer should be able to make payments in a timely manner.

9. In summary, the applicant represents that the proposed transaction meets the statutory criteria for an exemption under section 408(a) of the Act because: (a) The Plan's independent fiduciary has reviewed the terms and conditions of the proposed exemption and series of Loans and has determined that the Loans are in the best interest of the Plan's participants and beneficiaries; (b) the independent fiduciary will review and approve each Loan prior to making disbursements; (c) the Loans will at all times be secured by collateral which will be valued at not less than 200% of the aggregate balance of all outstanding Loans from the Plan to the Employer; (d) the aggregate balance of all outstanding Loans will not exceed 15% of the fair market value of the Plan's assets; and (e) the proposed exemption will be of a temporary nature not to exceed five years.

For Further Information Contact: Ms. Virginia Miller of the Department, telephone (202) 219–8971. (This is not a toll-free number.)

General Information

The attention of interested persons is directed to the following:

(1) The fact that a transaction is the subject of an exemption under section 408(a) of the Act and/or section 4975(c)(2) of the Code does not relieve a fiduciary or other party in interest of disqualified person from certain other provisions of the Act and/or the Code, including any prohibited transaction provisions to which the exemption does not apply and the general fiduciary responsibility provisions of section 404 of the Act, which among other things require a fiduciary to discharge his duties respecting the plan solely in the interest of the participants and beneficiaries of the plan and in a prudent fashion in accordance with section 404(a)(1)(b) of the act; nor does it affect the requirement of section 401(a) of the Code that the plan must operate for the exclusive benefit of the employees of the employer maintaining the plan and their beneficiaries;

(2) Before an exemption may be granted under section 408(a) of the Act and/or section 4975(c)(2) of the Code, the Department must find that the exemption is administratively feasible, in the interests of the plan and of its participants and beneficiaries and protective of the rights of participants and beneficiaries of the plan;

(3) The proposed exemptions, if granted, will be supplemental to, and not in derogation of, any other provisions of the Act and/or the Code, including statutory or administrative exemptions and transitional rules. Furthermore, the fact that a transaction is subject to an administrative or statutory exemption is not dispositive of whether the transaction is in fact a prohibited transaction; and

(4) The proposed exemptions, if granted, will be subject to the express condition that the material facts and representations contained in each application are true and complete, and that each application accurately describes all material terms of the transaction which is the subject of the exemption.

Signed at Washington, DC, this 14th day of July 1993.

Ivan Strasfeld,

Director of Exemption Determinations, Pension and Welfare Benefits Administration, U.S. Department of Labor.

[FR Doc. 93–17093 Filed 7–19–93; 8:45 am]

BILLING CODE 4510–29–P

[Prohibited Transaction Exemption 93–43; Exemption Application No. D–9291, et al.]

Grant of Individual Exemptions; The Society National Bank and the Society Corp., et al.

AGENCY: Pension and Welfare Benefits Administration, Labor.

ACTION: Grant of individual exemptions.

SUMMARY: This document contains exemptions issued by the Department of

Labor (the Department) from certain of the prohibited transaction restrictions of the Employee Retirement Income Security Act of 1974 (the Act) and/or the Internal Revenue Code of 1986 (the Code).

Notices were published in the **Federal Register** of the pendency before the Department of proposals to grant such exemptions. The notices set forth a summary of facts and representations contained in each application for exemption and referred interested persons to the respective applications for a complete statement of the facts and representations. The applications have been available for public inspection at the Department in Washington, DC. The notices also invited interested persons to submit comments on the requested exemptions to the Department. In addition the notices stated that any interested person might submit a written request that a public hearing be held (where appropriate). The applicants have represented that they have complied with the requirements of the notification to interested persons. No public comments and no requests for a hearing, unless otherwise stated, were received by the Department.

The notices of proposed exemption were issued and the exemptions are being granted solely by the Department because, effective December 31, 1978, section 102 of Reorganization Plan No. 4 of 1978 (43 FR 47713, October 17, 1978) transferred the authority of the Secretary of the Treasury to issue exemptions of the type proposed to the Secretary of Labor.

Statutory Findings

In accordance with section 408(a) of the Act and/or section 4975(c)(2) of the Code and the procedures set forth in 29 CFR part 2570, subpart B (55 FR 32836, 32847, August 10, 1990) and based upon the entire record, the Department makes the following findings:

(a) The exemptions are administratively feasible;

(b) They are in the interests of the plans and their participants and beneficiaries; and

(c) They are protective of the rights of the participants and beneficiaries of the plans.

The Society National Bank and the Society Corporation Located in Cleveland, Ohio

[Prohibited Transaction Exemption 93–43; Exemption Application No. D–9291]

Exemption

The restrictions of sections 406(a), 406 (b)(1) and (b)(2) of the Act and the sanctions resulting from the application of section 4975 of the Code, by reason of section 4975(c)(1) (A) through (E) of the Code, shall not apply to (1) the extension of credit (the Advances) by the Society Corporation (the Corporation) to the Managed Guaranteed Investment Contract Fund (the Fund), the trustee of which is the Society National Bank, a subsidiary of the Corporation, and in which the investors are employee benefit plans covered by the Act, regarding guaranteed investment contract No. GA–5005 (the GIC) issued to the Fund by Mutual Benefit Life Insurance Company of New Jersey (Mutual Benefit); and (2) the Funds's potential repayment of the Advances (the Repayments); provided that the following conditions are satisfied:

(A) All terms of such transactions are no less favorable to the Fund than those when the Fund could obtain in arm's-length transactions with an unrelated party;

(B) No interest and/ or expenses are paid by the Fund with respect to the Advances or the Repayments;

(C) The Advances are made only in lieu of payments due from Mutual Benefit with respect to the GIC;

(D) The Repayments shall not exceed the total Advances; and

(E) The Repayments shall in no event exceed the amounts actually received by the Fund from Mutual Benefit, any conservator, trustee or other person performing similar functions with respect to Mutual Benefit, and/or any state guaranty fund or other entity, other than the Corporation, acting as surety or insurer with respect to Mutual Benefit.

For a more complete statement of the facts and representations supporting the Department's decision to grant this exemption, refer to the notice of proposed exemption published on March 30, 1993 at 58 FR 16705.

For Further Information Contact: Ronald Willett of the Department, telephone (202) 219–8881. (This is not a toll-free number.)

Spaulding Associates, Inc. (Spaulding), the Bricklayers Local No. 39 Pension Plan (the Pension Plan), the Bricklayers Local No. 39 Health and Welfare Plan (the Health and Welfare Plan) and the Bricklayers Local No. 39 Annuity Plan (the Annuity Plan; collectively, the Plans) Located in Boston, MA

[Prohibited Transaction Exemption 93–44; Exemption Application Nos. D–8801, D–9352, L–9353 and D–9354, respectively]

Exemption

The restrictions of section 406(a) of the Act and the sanctions resulting from the application of section 4975 of the Code by reason of section 4975(c)(1)(A) through (D) of the Code, shall not apply to: (1) The past leasing of certain office space in a building (the Building) owned by the Pension Plan to Spaulding, a party in interest with respect to the Pension Plan; and (2) the proposed leasing of new office space in the Building by the Pension Plan to Spaulding.

In addition, the restrictions of sections 406(a), 406(b)(1) and (b)(2) of the Act and the sanctions resulting from the application of section 4975 of the Code by reason of section 4975(c)(1)(A) through (E) of the Code, shall not apply to the proposed leasing of office space by the Pension Plan to the Bricklayers Local No. 39 (the Union).

Further, the restrictions of section 406(b)(2) of the Act shall not apply to the proposed leasing of office space in the Building by the Pension Plan to the Health and Welfare Plan and the Annuity Plan.

This exemption is conditioned on the following requirements: (1) The terms of all such leasing arrangements have been, and will remain, at least as favorable to the Plans as those obtainable in an arm's length transaction with an unrelated party; (2) Mr. Norman A. Bergeron, an independent fiduciary who has approved of the leasing arrangements, agrees to monitor all prospective leases on behalf of the Pension Plan as well as the terms and the conditions of the transactions and the exemption at all times; (3) the rental charged by the Pension Plan under each lease is based upon the fair market rental value of the premises as determined by an independent appraiser; (4) the Building is revalued annually by an independent appraiser who has been selected by Mr. Bergeron; (5) if appropriate, Mr. Bergeron makes adjustments to the rentals charged for the office space based upon the annual appraisals of the Building; and (6) within 90 days of the publication in the **Federal Register** of the grant of this notice of proposed exemption, Spaulding and the Union file Forms 5330 with the Internal Revenue Service and pay all applicable excise taxes that are due by reason of their past leasing arrangements with the Pension Plan.

For a more complete statement of the facts and representations supporting the Department's decision to grant this exemption, refer to the notice of proposed exemption published on May 14, 1993 at 58 FR 28628.

Effective Date: This exemption is effective as of December 28, 1989 with respect to the leasing arrangement between the Pension Plan and

Spaulding. With respect to all other leasing arrangements, this exemption is effective as of the date of the grant.

For Further Information Contact: Ms. Jan D. Broady of the Department, telephone (202) 219–8881. (This is not a toll-free number.)

United Mine Workers of America 1974 Benefit Plan and Trust (the Plan) Located in Washington, DC

[Prohibited Transaction Exemption 93–45; Exemption Application No. D–8851]

Exemption

The restrictions of section 406(a) of the Act shall not apply to the past extension of credit (the Loan) to the Plan by the Mellon Bank, N.A. (Mellon Bank), a party in interest with respect to the Plan; provided that all terms of the Loan were at least as favorable to the Plan as those the Plan could obtain in an arm's-length transaction with an unrelated party.

For a more complete statement of the facts and representations supporting the Department's decision to grant this exemption refer to the notice of proposed exemption published on April 1, 1992 at 57 FR 11094.

Effective Date: This exemption is effective as of December 31, 1990.

Written Comments: The Department received twelve written comments and no requests for a hearing. The written comments were requests for clarification and explanation of the Notice of Proposed Exemption, and were submitted by participants and beneficiaries of the Plan. An official of the Department responded to the requests by telephone.

After consideration of the entire record, the Department has determined to grant the proposed exemption.

For Further Information Contact: Mr. Ronald Willett of the Department, telephone (202) 219–8881. (This is not a toll-free number.)

Old Guard Mutual Insurance Company Profit Sharing and Retirement Savings Plan (the Plan) Located in Lancaster, Pennsylvania

[Prohibited Transaction Application 93–46; Exemption Application No. D–9297]

Exemption

The restrictions of sections 406(a), 406(b)(1) and (b)(2) of the Act and the sanctions resulting from the application of section 4975 of the Code, by reason of section 4975(c)(1)(A) through (E) of the Code, shall not apply to the proposed cash sale of certain limited partnership interests (collectively, the Partnership Interests) by the Plan to Old Guard Mutual Insurance Company (the Employer), the Plan sponsor and a party in interest with respect to the Plan, provided the following conditions are satisfied;

(1) The sale will be a one-time cash transaction;

(2) No commissions or fees will be paid by the Plan as a result of the sale; and

(3) The sale price will be the higher of: (a) The original amounts paid by the Plan at the time of acquisition, less cash distributions through the date of the sale to the Plan; or (b) the current fair market value of the Partnership Interests on the date of the sale.

For a more complete statement of the facts and representations supporting the Department's decision to grant this exemption, refer to the notice of proposed exemption published on May 12, 1993, at FR 58 28048/28050.

Written Comments: A written comment submitted by the applicant indicated that due to an unforeseen shortage of capital, the Employer may not proceed with the above-referenced transaction in the near future. The ERISA Procedure (55 FR 32836, 32847, August 10, 1990) specifically provides in § 2570.49(a) and (b) that an exemption does not take effect or protect parties in interest from liability with respect to the exemption transaction unless the material facts and representations contained in the application and in any materials and documents submitted in support of the application were true and complete, and that an exemption is effective only * * * under the conditions set forth in the exemption. As a result, the Department notes that if the Employer elects to utilize this exemption, the material facts and representations contained in the application and any materials and documents submitted in support of the application must accurately reflect the terms and conditions of the transaction at the time the sale is consummated. In this regard, the applicant understands that the contemplated transaction, when consummated, may require the filing of a new exemption request with the Department if there have been material changes regarding the proposed transaction or the parties involved.

For Further Information Contact: Ekaterina A. Uzlyan of the Department, telephone (202) 219–8883. (This is not a toll-free number.)

The Stewart Company Defined Benefit Pension Plan and Trust Located in Torrance, CA

[Prohibited Transaction Exemption 93–47; Exemption Application No. D–9290]

Exemption

The restrictions of sections 406(a), 406(b)(1) and (b)(2) of the Act and the sanctions resulting from the application of section 4975 of the Code, by reason of sections 4975(c)(1) (A) through (E) of the Code, shall not apply to the proposed loan (the Loan) of $219,000 by the Stewart Company Defined Benefit Pension Plan & Trust (the Plan) to the Stewart Family Trust (the Trust), a party in interest with respect to the Plan, provided: (a) The terms of the Loan are at least as favorable to the Plan as those obtainable in an arm's length transaction between unrelated parties; (b) an independent fiduciary has determined that the proposed Loan is in the best interests of the Plan and represents that he will monitor the terms and conditions of the Loan and the terms of the exemption throughout its duration; (c) the Loan is secured by a first mortgage on real property having a fair market value not less than 150% of the principal amount of the Loan throughout its duration; (d) the fair market value of the collateral has been determined by a qualified, independent appraiser; (e) the Loan does not exceed 25% of the assets of the Plan for the duration of the Loan; and (f) the principal amount of the Loan does not exceed $219,000.

For a more complete statement of the facts and representations supporting the Department's decision to grant this exemption, refer to the notice of proposed exemption published on May 14, 1993 at 58 FR 28628.

For Further Information Contact: Eric Berger of the Department, telephone (202) 219–8971. (This is not a toll-free number.)

William L. Brice, D.D.S., P.C. Profit Sharing Plan (the Plan) Located in Fort Collins, CO

[Prohibited Transaction Exemption 93–48; Exemption Application No. D–9345]

Exemption

The sanctions resulting from the application of section 4975 of the Code, by reason of section 4975(c)(1) (A) through (E) of the Code, shall not apply to the proposed sale by the Plan for the total cash consideration of $162,000, of certain improved real property (the Property), to William L. Brice, D.D.S. and Charlene D. Brice, the Plan's

trustees as well as disqualified persons with respect to the Plan.[1]

This proposed exemption is conditioned on the following requirements: (1) The sale represents a one-time transaction for cash; (2) the sales price is based upon the appraised value of the Property as determined by a qualified, independent appraiser; and (3) the Plan does not pay any real estate fees or commissions in connection therewith.

For a more complete statement of the facts and representations supporting the Department's decision to grant this exemption, refer to the notice of proposed exemption published on June 2, 1993 at 58 FR 31429.

For Further Information Contact: Ms. Jan D. Broady of the Department, telephone (202) 219–8881. (This is not a toll-free number.)

General Information

The attention of interested persons is directed to the following:

(1) The fact that a transaction is the subject of an exemption under section 408(a) of the Act and/or section 4975(c)(2) of the Code does not relieve a fiduciary or other party in interest or disqualified person from certain other provisions to which the exemptions does not apply and the general fiduciary responsibility provisions of section 404 of the Act, which among other things require a fiduciary to discharge his duties respecting the plan solely in the interest of the participants and beneficiaries of the plan and in a prudent fashion in accordance with section 404(a)(1)(B) of the Act; nor does it affect the requirement of section 401(a) of the Code that the plan must operate for the exclusive benefit of the employees of the employer maintaining the plan and their beneficiaries;

(2) These exemptions are supplemental to and not in derogation of, any other provisions of the Act and/or the Code, including statutory or administrative exemptions and transactional rules. Furthermore, the fact that a transaction is subject to an administrative or statutory exemption is not dispositive of whether the transaction is in fact a prohibited transaction; and

(3) The availability of these exemptions is subject to the express condition that the material facts and representations contained in each application accurately describes all material terms of the transaction which is the subject of the exemption.

Signed at Washington, DC, this 14th day of July 1993.

Ivan Strasfeld,

Director of Exemption Determinations, Pension and Welfare Benefits Administration, U.S. Department of Labor.

[FR Doc. 93–17044 Filed 7–8–93; 8:45 am]

BILLING CODE 4510-29-P

[1] Because Dr. Brice and his wife are the sole participants in the Plan, there is no jurisdiction under title I of the Employee Retirement Income Security Act of 1974 (the Act). However, there is jurisdiction under title II of the Act pursuant to section 4975 of the Code.

NATIONAL COMMISSION ON FINANCIAL INSTITUTION REFORM, RECOVERY, AND ENFORCEMENT

Meeting

AGENCY: National Commission on Financial Institution Reform, Recovery and Enforcement.

Time and Date: 9:30 a.m. to 12:00 p.m., Tuesday, July 27, 1993.

Place: Main Lounge, National Press Club, 13th Floor, 529 14th Street NW., Washington, DC 20045.

Status: The meeting will be open to the public.

Matters to be Considered: At the meeting, the Commission shall release its final report to the President and Congress on the origins and causes of the savings and loan crisis and the Commission's recommendations for reform.

Contact Persons for Additional Information: Larry G. Hicks or Linda Johnson on (202) 632–1556.

Larry G. Hicks,

Director of Administration.

[FR Doc. 93–17152 Filed 7–19–93; 8:45 am]

BILLING CODE 6820-FD-M

NUCLEAR REGULATORY COMMISSION

[Docket No. 40–3453]

Atlas Minerals Corp.; Intent to Amend Source License

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Notice of intent to amend Source Material License SUA–917 for the Moab Mill to approve a plan for reclamation of the mill's tailings disposal area as supported by a finding of no significant impact regarding the proposed action for Atlas Corporation, Utah.

SUMMARY: The Nuclear Regulatory Commission is proposing to amend Source Material License SUA–917 to incorporate a revised tailings disposal area reclamation plan for Atlas Corporation's Moab Mill located near Moab, Utah. The accepted plan reclaims the disposal area in place. The proposed action is supported by a Finding of No Significant Impact as concluded in the Environmental Assessment prepared by the Commission.

DATES: The comment period expires August 19, 1993.

ADDRESSES: Copies of the license amendment request and the staff evaluations which are the bases for revision of the license are available for inspection at the Uranium Recovery Field Office, 730 Simms Street, suite 100, Lakewood, Colorado, and the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC.

Comments should be mailed to David L. Meyer, Chief, Rules Review and Directives Branch, Office of Administration, P–223, U.S. Nuclear Regulatory Commission, Washington, DC 20555, with a copy to the Director, Uranium Recovery Field Office, U.S. Nuclear Regulatory Commission, P.O. Box 25325, Denver, Colorado 80225.

Comments may be hand-delivered to room P–223, 7920 Norfolk Avenue, Bethesda, Maryland, between 7:30 a.m. and 4:15 p.m., Federal workdays.

FOR FURTHER INFORMATION CONTACT: Ramon E. Hall, Director, Uranium Recovery Field Office, Region IV, U.S. Nuclear Regulatory Commission, P.O. Box 25325, Denver, Colorado 80225. Telephone: (303) 231–5800.

SUPPLEMENTARY INFORMATION: The U.S. Nuclear Regulatory Commission (NRC) and the Environmental Protection Agency (EPA) entered into a Memorandum of Understanding (MOU) which was published in the **Federal Register** on October 25, 1991 (56 FR 55434). The MOU requires that the NRC complete review and approval of detailed reclamation (i.e., final closure) plans for nonoperational tailings impoundments as soon as practicable, but in any event not later than September of 1993.

The tailings disposal area for the Moab Mill contains approximately 10.5 million tons of material. Tailings were disposed into an approximately 130-acre diked impoundment constructed to a maximum height of about 110 feet. Moab Wash, an ephemeral channel, is located along the north and east sides of the impoundment and discharges into the Colorado River east of the site. The Colorado River flows along the eastern side of the facility.

The reclamation plan that was prepared in 1981, and approved by NRC in 1982, was based on projected disposal capacity requirements and was designed for an ultimate crest elevation of 4076 feet mean sea level (msl). The maximum crest elevation constructed during mill operations was 4058 feet msl, resulting in the necessity to

redesign the reclamation plan. In accordance with 10 CFR part 40, appendix A, the licensee, Atlas Corporation, submitted a revised reclamation plan by letter dated August 2, 1988. Review of the proposed plan resulted in requests for additional information, reevaluation, and redesign. As a result, Atlas submitted a revised reclamation plan by letter dated June 4, 1992. Review of this document resulted in a request for additional information dated March 5, 1993. Revisions to the June 4, 1992, reclamation plan were submitted by letters dated April 14, and April 23, 1993.

On April 6, 1993, the license submitted an Environmental Report Supplement in support of the proposed revised reclamation plan for the disposal area. This document was submitted as a supplement to the Environmental Report submitted in 1973 by the licensee, NRC's "Final Environmental Statement, Moab Uranium Mill," (NUREG–0453, January 1979), NRC's "Final Generic Environmental Impact Statement on Uranium Milling," (NUREG–0706, September 1980), and Atlas' license renewal application dated 1984. The supplement specifically addresses the expected impacts associated with mill tailings reclamation and evaluates alternatives for mitigating the impacts.

The Environmental Assessment was prepared by the Commission to evaluate the proposed licensing action. It was concluded that the reclamation of the tailings in accordance with the proposed plan would not have a significant impact on the environment. Short-term impacts to the environment will be minimal, while long-term impacts will be reduced to levels determined to be acceptable by promulgation of appendix A to 10 CFR part 40. The bases for the finding of no significant impact (FONSI) are provided in an Environmental Assessment.

Review and independent analyses of the revised reclamation plan for the Moab Mill disposal area have resolved all engineering issues and open items regarding reclamation of the disposal area except as noted, and it is concluded that the proposed design is consistent with current design guidance and applicable portions of 10 CFR part 40, appendix A. The bases for this determination are provided in the Memorandum for Docket File No. 40–3453 dated July 7, 1993. It is proposed to amend Source Material License SUA–917 by deleting License Condition No. 37 (regarding the configuration of the Moab Wash) and by modifying License Condition No. 41 to read as follows:

41. The licensee shall reclaim the tailings disposal area in accordance with Sections 1, 4, 5, 6, and 9 of the June 4, 1992, submittal entitled "Atlas Corporation, Technical Specifications, Uranium Mill and Tailings Disposal Area Reclamation" as revised by the April 14, 1993, submittal, and with the drawings submitted by letter dated April 23, 1993, with the following exceptions:

A. The sandy soil layer of the radon barrier shall be 1 foot over the coarse tailings and 2 feet over the fine tailings. The drawings and specifications must be revised and submitted to reflect this change in the design by October 31, 1993.

B. The fenced restricted area shall include the reconfigured Moab Wash. Drawing 88–067–E66 (April 23, 1993) shall be revised and submitted to reflect this change in the design by October 31, 1993.

C. The licensee shall submit a revised outslope design by October 31, 1993, for review and approval that assumes Moab Wash encroaches upon the embankment.

D. The licensee shall submit an erosion protection design for the Northeast Debris Pit located adjacent to the toe of the reclaimed disposal area by October 31, 1993. That protection shall consider flows from Moab Wash and runoff from the reclaimed outslope during a design basis event.

E. The bulk specific gravity of the rock shall be determined by ASTM C 127.

F. Durability testing of the rock portion of the soil/rock matrix shall be performed at the same frequency as that specified for riprap in Section 9.3.4.1 of the specifications dated April 14, 1993.

A completion report including as-built drawings, verifying that reclamation of the site has been performed according to the approved plan shall be provided within 6 months of the completion of construction. The report shall also include summaries of results of the quality assurance and control testing to demonstrate that approved specifications were met.

Ramon E. Hall,

Director, Uranium Recovery Field Office, Region IV.

[FR Doc. 93–17182 Filed 7–19–93; 8:45 am]

BILLING CODE 7590-01-M

Advisory Committee on Reactor Safeguards Subcommittee on Improved Light Water Reactors; Meeting

The ACRS Subcommittee on Improved Light Water Reactors will hold a meeting on August 4, 1993, in room P–110, 7920 Norfolk Avenue, Bethesda, MD.

The entire meeting will be open to public attendance.

The agenda for the subject meeting shall be as follows:

Wednesday, August 4, 1993–8:30 a.m. until the conclusion of business.

The Subcommittee will discuss NRC staff's response to ACRS comments and recommendations related to certain policy, technical, and licensing issues pertaining to evolutionary and advanced light-water reactor designs. Also, the Subcommittee will discuss the staff positions on certain remaining policy issues for passive plant designs. The purpose of this meeting is to gather information, analyze relevant issues and facts, and to formulate proposed positions and actions, as appropriate, for deliberation by the full Committee.

Oral statements may be presented by members of the public with the concurrence of the Subcommittee Chairman; written statements will be accepted and made available to the Committee. Recordings will be permitted only during those portions of the meeting when a transcript is being kept, and questions may be asked only by members of the Subcommittee, its consultants, and staff. Persons desiring to make oral statements should notify the ACRS staff member named below as far in advance as is practicable so that appropriate arrangements can be made.

During the initial portion of the meeting, the Subcommittee, along with any of its consultants who may be present, may exchange preliminary views regarding matters to be considered during the balance of the meeting.

The Subcommittee will then hear presentations by and hold discussions with representatives of the NRC staff, its consultants, and other interested persons regarding this review.

Further information regarding topics to be discussed, the scheduling of sessions open to the public, whether the meeting has been cancelled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefor can be obtained by a prepaid telephone call to the cognizant ACRS staff engineer, Dr. Medhat El-Zeftawy (telephone 301/492–9901) between 7:30 a.m. and 4:45 p.m. (EDT). Persons planning to attend this meeting are urged to contact the above named individual one or two days before the scheduled meeting to be advised of any changes in schedule, etc., that may have occurred.

Dated: July 13, 1993.

Sam Duraiswamy,

Chief, Nuclear Reactors Branch.

[FR Doc. 93–17183 Filed 7–19–93; 8:45 am]

BILLING CODE [illegible]

Advisory Committee on Reactor Safeguards Subcommittee on Planning and Procedures; Meeting

The ACRS Subcommittee on Planning and Procedures will hold a meeting on August 4, 1993, room P–422, 7920 Norfolk Avenue, Bethesda, MD.

The entire meeting will be open to public attendance, with the exception of certain portions that may be closed pursuant to 5 U.S.C. 552b(c) (2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS and matters the release of which would represent a clearly unwarranted invasion of personal privacy.

The agenda for the subject meeting shall be as follows:

Wednesday, August 4, 1993—2 p.m. until 4:30 p.m.

The Subcommittee will discuss proposed ACRS activities, practices and procedures for conducting the Committee business, and organizational and personnel matters relating to ACRS and its staff. The purpose of this meeting will be to gather information, analyze relevant issues and facts, and to formulate proposed positions and actions, as appropriate, for deliberation by the full Committee.

Oral statements may be presented by members of the public with the concurrence of the Subcommittee Chairman; written statements will be accepted and made available to the Committee. Recordings will be permitted only during those portions of the meeting when a transcript is being kept, and questions may be asked only by members of the Subcommittee, its consultants, and staff. Persons desiring to make oral statements should notify the ACRS staff member named below as far in advance as is practicable so that appropriate arrangements can be made.

Further information regarding topics to be discussed, the scheduling of sessions open to the public, whether the meeting has been cancelled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefor can be obtained by a prepaid telephone call to the cognizant ACRS staff person, Dr. John T. Larkins (telephone 301/492–4516) between 7:30 a.m. and 4:15 p.m., EDT. Persons planning to attend this meeting are urged to contact the above named individual one or two days before the scheduled meeting to be advised of any changes in schedule, etc., that may have occurred.

Dated: July 13, 1993.

Sam Duraiswamy,

Chief, Nuclear Reactors Branch.

[FR Doc. 93–17184 Filed 7–19–93; 8:45 am]

BILLING CODE [illegible]

[Docket No. 030–11722 License No. 34–13103–02 EA 92–132]

City of Columbus, Division of Construction Inspection, Columbus, OH; Order Imposing Civil Monetary Penalty

I

The City of Columbus, Division of Construction Inspection, Columbus, Ohio (Licensee) is the holder of Byproduct License No. 34–13103–02 first issued by the Nuclear Regulatory Commission (NRC or Commission) on June 4, 1981, and renewed in its entirety on March 24, 1992. The license is due to expire on March 31, 1997. The license authorizes the Licensee to use sealed sources of cesium-137 not to exceed 10 millicuries (Troxler Drawing No. A 102112) and sealed sources of americium-241 not to exceed 50 millicuries each (Troxler Drawing No. A–102451) in Troxler Model 3400 Series surface/ moisture density guages in accordance with the conditions specified therein. Licensed material may be stored at the Licensee's facility located at 1800 East 17th Avenue, Columbus, Ohio, or at temporary job sites of the Licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.

II

An inspection of the Licensee's activities was conducted on July 23 and 25 1991, and the NRC Office of Investigations subsequently conducted an investigation of certain apparently deliberate actions. The results of the inspection and investigation indicated that the Licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the Licensee as Enclosure 1 to the NRC's letter dated April 6, 1993. The Notice stated the nature of the violation, the provision of the NRC's requirements that the Licensee had violated, and the amount of the civil penalty proposed for the violation. The Licensee responded to the Notice by letter dated May 19, 1993. In its response, the Licensee did not specifically admit or deny the violation and requested a $1,000 remission of the civil penalty.

III

After consideration of the Licensee's response and the statements of fact, explanation, and argument for mitigation contained therein, the NRC staff has determined, as set forth in the Appendix to this Order, that the violation occurred as stated and that the penalty proposed for the violation designated in the Notice should be imposed.

IV

In view of the foregoing and pursuant to section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, *it is hereby ordered that:*

The Licensee pay a civil penalty in the amount of $2,000 within 30 days of the date of this Order, by check, draft, money order, or electronic transfer, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555.

V

The Licensee may request a hearing within 30 days of the date of this Order. A request for a hearing should be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555. Copies also shall be sent to the Secretary, U.S. Nuclear Regulatory Commission and the Assistant General Counsel for Hearings and Enforcement at the same address and to the Regional Administrator, NRC Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the Licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the Licensee requests a hearing as provided above, the issues to be considered at such hearing shall be:

(a) Whether the Licensee was in violation of the Commission's requirements as set forth in the Notice referenced in Section II above, and

(b) Whether, on the basis of such violation, this Order should be sustained.

Dated at Rockville, Maryland this 13th day of July 1993.

For the Nuclear Regulatory Commission.

James Lieberman,

Director, Office of Enforcement.

Appendix—Evaluation and Conclusions

On April 6, 1993, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for a violation identified during an NRC inspection on July 23 and 25, 1991, and a subsequent investigation concerning the violation conducted by the NRC Office of Investigations. The City of Columbus, through its Chief Environmental and Utilities Attorney, responded to the Notice by letter dated May 19, 1993. In its response, the Licensee did not specifically admit or deny the violation, and requested remission of the civil penalty by $1,000. The NRC's evaluation and conclusions regarding the Licensee's request are as follows:

Restatement of Violation

License Condition No. 14 which was in effect from June 4, 1981, until it was superseded by License Condition No. 19 on December 12, 1990, prohibited the Licensee from removing sealed sources containing licensed material from gauges. License Condition No. 19 which was in effect from December 12, 1990, until the license was renewed in its entirety on March 24, 1992, required that any cleaning, maintenance or repair or gauges that requires removal of the source rod (sealed sources) shall be performed only by the manufacturer or by other persons specifically licensed by the Commission or an Agreement State to perform such services.

Contrary to the above, from approximately 1982 to July 21, 1991, Licensee employees routinely removed source rods in order to clean and maintain the gauges and they were not representative of the manufacturer or were not specifically licensed by the Commission or an Agreement State to perform such services. Specifically, from 1982 to November 1990, one individual removed sources rods at least twice a year to clean the gauges. From at least December 12, 1990, to July 21, 1991, another individual removed the source rods from at least three gauges on a monthly basis to clean and maintain the gauges. A third individual removed the source rod from one moisture density gauge on at least one occasion from December 12, 1990, to July 21, 1991, to clean and maintain the gauge.

Restatement of Licensee's Response to Violation

The Division's first gauge operator and Radiation Safety Officer (RSO) stated that during his initial training classes with Troxler Electronics, he was instructed in the removing and cleaning of the gauge source rod using the lead shield. He was advised of the necessary safety precautions to follow, and was led to believe that the exposure level, once the rod was removed, was minimal and not a safety hazard.

The sole purpose that this RSO and gauge user and successive RSOs and gauge operators gave for continued removal and cleaning of the source was not a deliberate attempt to violate NRC regulations or to intentionally disregard the NRC's authority, but to keep maintenance costs and periods of time without the much needed gauges to a minimum.

Prior to the City's contracting with an outside contractor for cleaning, the Division's only option was to send the gauges back to the manufacturer's headquarters in North Carolina. Services from the City's present contractor were not available locally at that time, and service by the manufacturer itself entailed lost time and expense.

NRC's Evaluation of Licensee's Response

The NRC recognizes that the manufacturer may have demonstrated to Licensee personnel safe methods to clean and maintain a soil moisture density gauge. The NRC acknowledges that the two previous RSOs routinely removed source rods to clean gauges in an attempt to save money for the City of Columbus, and they were not instructed by their supervisors or managers to perform this unauthorized maintenance. Nonetheless, their training and activities did not relieve the Licensee from the condition of the license that prohibited the removal of source rods by other than a specifically authorized individual.

This case is of particular concern because the RSOs, the technical experts in the safe handling of these nuclear gauges with responsibility for ensuring that Licensee employees satisfy the conditions in the license, were the individuals who exposed and removed the source rods. The NRC expects RSOs to be aware of regulatory requirements and follow them, particularly if the requirement is specifically stated in a license condition. Individuals who are specifically authorized to perform maintenance are not only trained in the proper maintenance procedures, but also receive radiation safety training specific to the job. Furthermore, an authorized person is issued specific extremity dosimetry in order to show the radiation exposure to the hands during source rod removal. This specialized training and dosimetry were not available to any of your employees who performed this maintenance. The only dosimetry available to them was a personnel dosimeter (film badge), which is not sufficient for this specific type of work; therefore, it cannot be conclusively shown that the employees did not receive a radiation exposure to the extremities. The NRC acknowledges that no individual's personnel dosimeter showed a significant exposure.

The Licensee points out that such maintenance services were not locally obtainable at the time of the violation and that the devices would have had to be sent to the manufacturer for maintenance at considerable loss of time and expense to the City. However, the City of Columbus had the option of amending its NRC license to allow this maintenance by an employee who had received the necessary radiation safety training and who used proper dosimetry.

As to the willfulness of the violations and the Licensee's request for $1,000 remission of the civil penalty, in sworn, transcribed testimony, two of the previous RSOs stated that they knew the NRC prohibited the removal of the source rods (sealed sources), and in fact discussed that point between themselves. Regardless of their motive to save money for the City of Columbus, these RSOs, the technical experts who are expected to set the example for the safe use of the nuclear gauge to other gauge users, knew the NRC prohibited the removal of source rods by other than specifically authorized personnel, yet performed this unauthorized maintenance practice for many years. The NRC concludes that the violations were willful.

As stated in the NRC's letter, dated April 6, 1993, the civil penalty adjustment factors described in the NRC Enforcement Policy were considered in arriving at the base civil penalty. That letter stated that the civil penalty was increased an additional 200 percent "because your Radiation Safety Officers, whom you specifically designated to ensure compliance with NRC regulatory requirements were involved in willful violations. This increase in the civil penalty emphasizes the unacceptability of involvement of Radiation Safety Officers in willful violations." The Licensee's letter of May 19, 1993, in response to the Notice, does not challenge any or all of the NRC's explanation for arriving at the $2,000 civil penalty.

NRC Conclusion

The NRC staff has concluded that the information provided in the Licensee's response does not provide an adequate basis for mitigation of the civil penalty. The substance of the Licensee's May 19, 1993, response to the Notice centers around an attempt to keep maintenance costs as low as possible for the City. Employees who were specifically charged with handling nuclear gauging devices in a safe manner and were the Licensee's technical experts in the safe use of the devices, purposely ignored a condition of the NRC license. License Conditions are established not only for the safety of the Licensee's employees, but also for the public health and safety. The disregard of NRC regulations and license conditions cannot be tolerated by the NRC and should not be excused by the City of Columbus as a way to save money. The only argument the Licensee makes for a remission of $1,000 of the proposed civil penalty is to save tax money. The NRC's Enforcement Policy in 10 CFR part 2, appendix C, does not provide for remission of a civil penalty on this basis and the staff has determin4ed that remission is not appropriate in this case.

The NRC has concluded that this violation occurred as stated and no adequate basis for either reduction of the severity level or for mitigation of the civil penalty was provided by the licensee. Consequently, the proposed civil penalty in the amount of $2,000 should be imposed.

[FR Doc. 93–17186 Filed 7–19–93; 8.45 am]

BILLING CODE 7590-01-M

[Docket No. 030–05373; License No. 29–09814–01, EA 92–136]

Eastern Testing and Inspection Inc., Thorofare, NJ; Order Modifying Order Imposing Civil Monetary Penalty

I

Eastern Testing and Inspection, Inc. (Licensee) is the holder of Byproduct Material License No. 29–09814–01 issued by the Nuclear Regulatory Commission (NRC or Commission) which authorizes the Licensee to use byproduct materials for use in industrial radiography and replacement of sources in accordance with the conditions specified therein. The license was issued on February 2, 1964, was last renewed on Febuary 20, 1987, and remains active under the timely renewal application submitted on February 3, 1992.

II

As a result of a June 17, and July 7 and 8, 1992, NRC inspection of the Licensee's activities, a written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of Seven Thousand Five Hundred Dollars was served upon the Licensee by NRC letter dated September 17, 1992. The Licensee responded to the Notice in two letters, dated October 16 and 26, 1992, respectively. In its response, the Licensee did not deny the violations, but requested full mitigation of the civil penalty.

After consideration of the Licensee's response and the statements of fact, explanation, and argument for mitigation contained therein, the NRC staff determined that the violations occurred as stated that the penalty proposed for violation designated in the Notice should be imposed. Accordingly, NRC issued an Order Imposing a Civil Monetary Penalty to the licensee on January 25, 1993.

III

The licensee responded in a letter dated February 17, 1993 and requested a hearing. By letter dated March 17, 1993, the NRC confirmed a telephone conversation between Mr. H.J. Soni, Licensee President, and NRC representative in which the Licensee requested delay in processing of its February 17, 1993 hearing request until after NRC reviewed additional information the Licensee was to submit for consideration. In correspondence dated April 13, 1993, May 10, 1993 and June 15, 1993, the Licensee submitted the additonal information. These letters provided financial information to support the Licensee's assertion concerning its ability to pay, and additional information the Licensee considered relevant to the violations. During a June 22, 1993 telephone conversation between the NRC staff and Messrs. H. Soni, D. Soni, and J. Badiali, EIT, the NRC staff, as provided for in the NRC Enforcement Policy, proposed a $5,000 civil penalty based on the licensee's demonstrated financial difficulty. The Licensee agreed to payment of the $5,000 penalty, with interest, over five years and indicated that it did not want the NRC staff to proceed with the request for hearing. The Licensee signed a Promissory Note on June 29, 1993, for Payment of the Civil Penalty in response to an NRC letter dated June 24, 1993.

Upon review of the facts of this case, including the information submitted in the licensee's April 13, 1993, May 10, 1993, and June 15, 1993, letters, I find that the financial information provided on the Licensee's assertion of adverse financial impact and its ability to pay support a $2,500 reduction of the $7,500 civil penalty imposed in the January 25, 1993 Order. This is consistent with the NRC Enforcement Policy and, therefore, on July 12, 1993, I countersigned and, thereby, accepted the Promissory Note in payment for the Civil Monetary Penalty.

IV

In view of the foregoing, and pursuant to section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, *it is hereby ordered that:*

The Order Imposing a Civil Monetary Penalty dated January 25, 1993, is modified to change Section IV as follows:

The Licensee pay a civil penalty of $5,000 in accordance with the procedures and payment installments provided in the attached Promissory Note executed by the Licensee's President on June 29, 1993, and countersigned by the Director, Office of Enforcement on July 12, 1993. The Licensee's execution of the Promissory Note, as stated herein, constitutes a waiver of its rights to contest the amount of the civil penalty or the underlying violations on which the civil penalty is based.

Dated at Rockville, Maryland, this 13th day of June 1993.

For the Nuclear Regulatory Commission.

James Lieberman,

Director, Officer of Enforcement.

[FR Doc. 93–17187 Filed 7–19–93; 8:45 am]

BILLING CODE 7590–01–M

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–32630; International Series Release No. 563; File No. SR–OCC–93–15]

Self-Regulatory Organizations; The Options Clearing Corp.; Filing and Order Granting Accelerated Approval of a Proposed Rule Change Relating to a Friday Expiration Date for Certain Foreign Currency Option Contracts

July 14, 1993.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),[1] notice is hereby given that on July 9, 1993, The Options Clearing Corporation ("OCC") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I and II below, which Items have been prepared primarily by OCC. The Commission is publishing this notice and order to solicit comments from interested persons and to grant accelerated approval of the proposed rule change.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The purpose of the proposed rule change is to have Friday instead of Saturday as the expiration date for certain foreign currency option contracts to be listed in the future.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, OCC included statements concerning the purpose of and basis for the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. OCC has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

The purpose of the proposed rule change is to have the Friday immediately preceding the third Wednesday of the expiration month instead of the Saturday immediately preceding the third Wednesday of the expiration month as the expiration date for certain foreign currency option contracts listed for trading during or after June 1993. For end-of-month option contracts listed for trading during or after July 1993, the expiration

[1] 15 U.S.C. 78s(b)(1) (1988).

date will be the last Friday of the expiration month instead of the last Saturday of the expiration month. On June 11, 1993, the Commission granted accelerated approval through July 16, 1993, of these proposed changes.[2]

OCC is now proposing to make permanent the change in the expiration date of these foreign currency option contracts and to make similar changes to the expiration date of certain cross-rate foreign currency options. OCC is changing the expiration date in certain foreign currency option contracts in order to reduce the overtime costs associated with weekend expiration processing. The proposed change of the expiration date of foreign currency option contracts from Saturday to Friday will be implemented initially for foreign currency option contracts listed for trading during or after June 1993 and for end-of- month foreign currency option contracts listed for trading during or after July 1993. Two exceptions are built into the new expiration date.

First, if the expiration date for a foreign currency option contract falls on a day that the Exchange is not open for business, the expiration date for such option contract will be the preceding day the Exchange is open for business.

Second, certain long term foreign currency option contracts listed before June 1993, most notably the June 1994 and the December 1994 series, have Saturday expirations.

In Article XV, Section 1 of the By-Laws, certain definitions are amended to reflect the proposed change in the expiration date. As described above, the definition of expiration date is amended to reflect that the expiration date for foreign currency option contracts listed before June 1993 and all foreign currency option contracts expiring in June 1994 and December 1994 will continue to be the Saturday immediately preceding the third Wednesday of the expiration month of such option contracts while the expiration date for foreign currency option contracts listed for trading during or after June 1993 will be the Friday immediately preceding the third Wednesday of the expiration month of such option contracts. Similarly, the definition of expiration date is amended to reflect that the expiration date for existing end-of-month option contracts listed for trading before July 1993 will continue to be the Saturday following the last Friday of the expiration month of such option contracts while the expiration date for end-of-month foreign currency option contracts listed for trading during or after July 1993 will be the last Friday of the expiration month of such option contracts.

Language is being added to the definition of expiration date to provide that foreign currency option contracts and end-of-month foreign currency option contracts that otherwise would have an expiration date on a day that the Exchange is not open for business will expire on the preceding day that the Exchange is open for business. Lastly, Article XV, Section 1 has been alphabetized to facilitate the referencing of terms contained in that section.

Paragraph (b) has been added to Rule 1603. Paragraph (a), which contains the current language of Rule 1603, provides that foreign currency option contracts expiring on Saturday generally shall utilize the expiration date exercise procedures set forth in Rule 805. In contrast, new paragraph (b) provides that foreign currency option contracts expiring on Friday generally shall utilize the expiration date exercise procedures set forth in Rule 806. Rule 806(b)(1) establishes timeframes for the issuance of reports by OCC and an operational cut-off time for exercises by clearing members.[3] The current language of Rule 1603 allows OCC's Board of Directors, with thirty days notice to all foreign currency clearing members, to make OCC's exercise-by-exception processing applicable to expiring foreign currency option contracts. This language has been retained in Rule 1603(a) but has been modified to apply only to foreign currency option contracts expiring on Saturday. A parallel provision has been added to Rule 1603(b) with respect to foreign currency option contracts expiring on Friday.

Finally, Rule 1606A has been amended to provide OCC with more flexibility in setting a cut-off time for the submission of delivery versus payment authorizations ("DVP Authorizations"). Currently, DVP Authorizations must be submitted to OCC by 12:00 p.m. Central Time on the date on which any exercise and assignment report is made available. Currently, exercise and assignment reports for foreign currency option contracts are made available on the Sunday following the Saturday expiration date, and accordingly, DVP Authorizations are required to be submitted by the cut-off time on that Sunday. However, with respect to newly listed foreign currency option contracts which will expire on Friday, OCC anticipates that the exercise and assignment report will be made available on the Saturday following the expiration date even though for purposes of processing OCC does not need the DVP Authorization until Sunday.[4] Accordingly, Rule 1606A now provides that DVP Authorizations may be submitted on the date on which any exercise and assignment report is made available or at such other times as OCC shall prescribe.

The purpose of this filing also is to make similar changes to the expiration date of certain cross-rate foreign currency options. Because OCC's clearance and settlement procedures for foreign currency options and cross-rate foreign currency options are the same, OCC believes that it is appropriate to make conforming changes to the expiration date of cross-rate foreign currency options. Specifically, cross-rate foreign currency options listed for trading during or after June 1993 will expire on the Friday instead of the Saturday immediately preceding the third Wednesday of the expiration month. End-of-month cross-rate foreign currency options listed for trading during or after June 1993 will expire on the last Friday of the expiration month rather than on the Saturday following the last Friday.

The change in expiration date for cross-rate foreign currency options requires the same exceptions to which other foreign currency options are subject. As discussed above, if any expiration date for a cross-rate foreign currency option falls on a day that the Exchange is not open for business, the expiration date for such option contract will be the preceding day the Exchange is open for business.

Second, certain long term cross-rate foreign currency option contracts listed before June 1993 (most notably the June 1994 and the December 1994 series) have Saturday expirations. To avoid investor confusion, all cross-rate foreign currency option contracts listed for trading in the future with expiration dates coincident with those existing

[2] Securities Exchange Act Release No. 32458 (June 11, 1993), 58 FR 33848 [File No. SR–OCC–93–09]. The temporary approval order contained in Release No. 34–32458 specifically did not provide for OCC to issue and clear any cross-rate foreign currency options with a Friday expiration date.

[3] At or before 6 p.m. Central Time (7 p.m. Eastern Time) on each business day that is an expiration date for a foreign currency option contract, OCC will make available to clearing members a report listing each expiring foreign currency option contract. A clearing member desiring to exercise foreign currency option contracts must return its exercise instructions to OCC by 8:30 p.m. Central Time (9:30 p.m. Eastern Time). Rule 1603(b)(1).

[4] OCC anticipates it may make systems changes in the future to allow for processing of DVP Authorizations on the Saturday following expiration. If such changes are made, OCC will file with the Commission a proposed rule change under section 19(b) of the Act.

contract months, June 1994 and December 1994, will continue to be listed with a Saturday expiration. Furthermore, OCC will make no changes to existing cross-rate foreign currency option contracts. Such contracts will continue to expire on the Saturday immediately preceding the third Wednesday of the month.

To accommodate the proposed changes to the expiration date of cross-rate foreign currency options, certain modifications to OCC's By-Laws and Rules are being proposed. In Article XX, Section 1 of the By-Laws, certain definitions are being amended. As described above, the definition of expiration date is being amended to reflect that the expiration date for existing cross-rate foreign currency options and cross-rate foreign currency option contracts expiring in June 1994 and December 1994 will continue to be the Saturday immediately preceding the third Wednesday of the expiration month of such option contracts while the expiration date for cross-rate foreign currency options listed for trading during or after June 1993 will be the Friday immediately preceding the third Wednesday of the expiration month of such option contracts. The definition of expiration date is also being amended to reflect that the expiration date for end-of-month cross-rate foreign currency option contracts listed for trading before July 1993 will continue to be the Saturday following the last Friday of the expiration month of such option contracts while end-of-month cross-rate foreign currency option contracts listed for trading during or after July 1993 will be the last Friday of the expiration month of such options contracts. Language is also being added to the definition of expiration date to provide that if the expiration date for a cross-rate foreign currency option is a day that the Exchange is not open for business, the expiration date for such option will be the preceding day that the Exchange is open for business. Finally, Article XX, Section 1 has been alphabetized to facilitate the referencing of terms contained in that section.

Paragraph (b) is being added to Rule 2103. Paragraph (a), which contains the current language of Rule 2103, provides that cross-rate foreign currency option contracts expiring on Saturday generally shall utilize the expiration date exercise procedures set forth in Rule 805. In contrast, new paragraph (b) provides that cross-rate foreign currency options expiring on Friday generally shall utilize the expiration date procedures set forth in Rule 806, which sets forth the expiration date exercise procedures for options that expire on a business day. The current language of Rule 2103 allows OCC's Board of Directors with thirty days notice to all cross-rate foreign currency members to make OCC's exercise-by-exception processing applicable to expiring foreign currency options. This language is being retained in Rule 2103(a) but has been modified to apply only to foreign currency option contracts expiring on Saturday. A parallel provision is being added to new Rule 2103(b) to grant OCC's Board of Directors similar powers with respect to cross-rate foreign currency options expiring on Friday.

Finally, Rule 2107 is being amended to provide OCC with more flexibility in setting a cut-off time for the submission of DVP Authorizations. Currently, DVP Authorizations must be submitted to OCC at or before 12 p.m., Central Time on the date on which any exercise and assignment report is made available. Under the existing Rules, exercise and assignment reports for cross-rate foreign currency options are made available on the Sunday following the expiration date. Accordingly, DVP Authorizations are required to be submitted by the cut-off time on the Sunday following expiration. However, with respect to newly listed cross-rate foreign currency options which will expire on Friday, OCC anticipates that the exercise and assignment report will be made available on the Saturday following the expiration date, even though the DVP Authorization procedures need not take place until Sunday. Accordingly, Rule 2107 is being amended to provide that DVP Authorizations may be submitted on the date on which any exercise and assignment report is made available or at such other times as OCC shall prescribe.

OCC believes that the proposed rule change is consistent with the requirements of section 17A of the Act because it facilitates the prompt and accurate clearance and settlement of foreign currency and cross-rate foreign currency option transactions.

B. Self-Regulatory Organization's Statement on Burden on Competition

OCC does not believe that the proposed rule change will impose any burden on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rules Change Received From Members, Participants, or Others

Written comments were not and are not intended to be solicited with respect to the proposed rule change, and none have been received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The Commission believes OCC's proposal to have Friday instead of Saturday as the expiration date for foreign currency option contracts listed in the future is consistent with the requirements of the Act and the rules and regulations thereunder applicable to registered clearing agencies. In particular, sections 17A(b)(3)(F) of the Act require that a clearing agency be organized and that its rules be designed to protect investors and the public interest.[5] Additionally, section 17A(a)(1) of the Act sets forth Congress finding that ineffective procedures for clearance and settlement impose unnecessary costs on investors and persons facilitating transactions by and acting on behalf of investors.[6] Friday expirations will permit OCC to reduce the overtime costs associated with weekend expiration processing and as a result to offer more efficient and less costly service to its clearing members.

OCC also has requested that the Commission find good cause for approving the proposed rule change prior to the thirtieth day after the date of publication of notice of the filing in the **Federal Register**. Accelerated approval will permit OCC to coordinate with the PHLX the implementation of the Friday expiration for foreign currency options listed during or after July 1993.[7] The Commission finds good cause for so approving the proposed rule change.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than

[5] 15 U.S.C. 78q–1(b)(3)(F) (1988).

[6] 15 U.S.C. 78q–1(a)(1) (1988).

[7] On June 13, 1993, while acting under the terms of the temporary approval order in Release No. 34–32458, *supra* note 2, OCC issued long term option contracts expiring in June 1995 on the Australian Dollar, British Pound, Canadian Dollar, German Mark, French Franc, Swiss Franc, European Currency Unit, and Japanese Yen. This approval order makes permanent the approval of the expiration date change for these option contracts.

those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Section, 450 Fifth Street, NW., Washington, DC 20549. Copies of such filing will also be available for inspection and copying at the principal office of the above-referenced self-regulatory organization. All submissions should refer to File No. SR–OCC–93–15 and should be submitted by August 10, 1993.

It is therefore ordered, Pursuant to section 19(b)(2) of the Act,[8] that the proposed rule change (File No. SR–OCC–93–15) be, and hereby is, approved.

For the Commission by the Division of Market Regulation, pursuant to delegated authority.[9]

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 93–17147 Filed 7–19–93; 8:45 am]

BILLING CODE 8010–01–M

[Release No. 34–32623; International Series Release No. 562; File No. SR–PHLX–93–02]

Self-Regulatory Organizations; Order Granting Accelerated Approval of a Proposed Rule Change by the Philadelphia Stock Exchange, Inc., Relating to Friday Expirations for Foreign Currency Options.

July 13, 1993.

I. Introduction

On May 19, 1993, the Philadelphia Stock Exchange, Inc. ("PHLX" or "Exchange") filed with the Securities and Exchange Commission ("Commission"), pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),[1] and Rule 19b–4 thereunder,[2] a proposed rule change to move the expiration of foreign currency options ("FCOs") from Saturday to Friday.[3] Notice and partial acceleration of the proposal appeared in the **Federal Register** on June 17, 1993.[4] No comment letters were received on the proposed rule change. This order approves the Exchange's proposal.

II. Description of Proposal

Foreign currency options, other than month-end FCOs, presently expire at 11:59 p.m. Eastern Standard Time ("e.s.t.") on the Saturday night preceding the third Wednesday of the expiration month. Month-end FCOs expire at 11:59 p.m. e.s.t. on the Saturday following the last Friday of the expiration month. The proposed amendment would allow both types of FCOs to expire 24 hours earlier each month at 11:59 p.m. e.s.t. on the appropriate Friday of the month.[5]

Unlike the underlying securities markets for equity options which generally trade on an exchange for only a limited number of hours during the trading day, the spot market for currencies underlying FCOs remains open 24 hours a day, seven days a week. Additionally, unlike equity options, there is no Exchange exercise cut-off rule applicable to the expiration of FCOs.[6] As a result, since PHLX's FCO market closes at 2:30 e.s.t. on Friday and the FCOs do not expire until 11:59 p.m. e.s.t. the next day, the writer of the FCO bears the risk of assignment during the 30-plus hour time period. The PHLX believes that the failure of an option writer to close any outstanding FCO positions prior to the close of trading on Expiration Friday leaves the option writer exposed to a significant risk of fluctuations in exchange rates during that time period.

The PHLX believes that many potential investors in FCOs are unwilling to assume the risks associated with the 30-plus hour time period between the close of trading and expiration. The Exchange believes that if this window of exposure is shortened, thereby decreasing the risk of assignment prior to expiration, investor demand for FCOs will increase, thus creating greater liquidity in the FCO market. The PHLX, therefore, proposes to amend Exchange Rule 1000(b)(21) in order to change the expiration date for FCOs so that they expire each month on the relevant Friday at 11:59 p.m. e.s.t. instead of Saturday at that time. One limited exception to the rule is provided. Currently, a June 1994 and December 1994 long-term option is listed solely with a European-style expiration.[7] When those options convert to regular 12-month options in June and December 1993 respectively, a corresponding American-style option contract will be listed.[8] Because the European-style contract was listed with a Saturday expiration, the Exchange believes it is necessary to also list the comparable American-style contracts with a Saturday expiration in order to alleviate investor confusion.

To further avoid possible investor confusion, the Exchange has developed and distributed a calendar showing which expirations will occur on Friday and which will occur on Saturday through December 1994.[9] Additionally, the Exchange's Market Surveillance Department will distribute an informational memorandum each month during expiration week reminding members/participants on which day that month's options contracts will expire, and explaining that newly listed options will have Friday expirations. The informational memorandum will also identify expiration dates for all currently listed FCO contracts. Further, any time a new series is added to an existing option, a memorandum will be distributed notifying the public of the applicable expiration date.

III. Discussion

The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange, and, in particular, the requirements of section 6(b)(5)[10] in that the proposal is designed to foster just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market, and protect investors and the public interest. Specifically, the Commission finds that the proposal will further the protection of investors and the public interest by limiting the exposure of

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[8] 15 U.S.C. 78s(b)(2) (1988).

[9] 17 CFR 200.30–3(a)(12) (1992).

[1] 15 U.S.C. 78s(b)(1) (1988).

[2] 17 CFR 240.19b–4 (1992).

[3] The proposed rule change will affect all foreign currency options listed on the PHLX, including cross-rate foreign currency options.

[4] *See* Securities Exchange Act Release No. 32452 (June 11, 1993), 58 FR 33473 ("Exchange Act Release No. 32452"). Partial acceleration of the proposal was granted in order to allow the Exchange to list long-term June 1995 FCOs with Friday expirations to avoid customer confusion because, if the proposal was approved in its entirety, no outstanding FCOs would have Saturday expirations in 1995. The partial approval for the long-term FCOs, combined with the approval herein for all other FCOs, will result in the last Saturday expiration in outstanding FCOs occurring in December 1994, and Friday expirations for all PHLX traded FCOs as of January, 1995.

[5] Currently, the PHLX trades FCOs on eight currencies (Australian dollar, British pound, Canadian dollar, Deutsche mark, French franc, Japanese yen, Swiss franc, and European currency unit) and two cross-rate options (Deutsche mark/Japanese yen, and British pound/Deutsche mark). The PHLX trades options on these foreign currencies that expire both mid-month and end-of-month, in addition to long-term options on these currencies.

[6] Exercise cut-off rules provide a deadline after the close of trading after which options cannot be exercised. *See* PHLX Rule 1042(b) which states that options must be exercised, if at all, no later than 5:30 p.m. e.s.t. on the trading day prior to the expiration date ("Expiration Friday").

[7] European-style options may be exercised only during a specified period immediately prior to the expiration of the option.

[8] American-style options may be exercised by the holder at any time prior to expiration of the option.

[9] See Information Circular: 086–93, from the PHLX Market Surveillance Department to Members, dated May 19, 1993.

[10] 15 U.S.C. 78f(b)(5) (1988).

writers of FCOs to foreign currency fluctuations occurring after the close of PHLX's foreign currency option market but prior to expiration of the FCOs. The Commission believes that current Exchange FCO rules, under which FCO option writers bear the risk of assignment for in excess of 30 hours after the close of the FCO market, may inhibit trading in FCOs and thus could result in decreasing the liquidity of the FCO market. By shortening this exposure by 24 hours, the Commission believes that investors who currently forego certain FCO investments because of the perceived risk of assignment may now decide to enter the FCO market. As a result, the Commission believes that approval of the proposal could result in benefits to the FCO market and to FCO market participants such as increased liquidity.

Furthermore, the Commission notes that the Exchange has represented that it will take certain steps in order to minimize confusion during the transition period in which both Friday- and Saturday-expiring FCOs will be outstanding and trading. The Exchange has represented that it will develop and distribute a calendar showing which expirations will occur on Friday and which will occur on Saturday during this transition period. Additionally, the Exchange has represented that its Market Surveillance Department will distribute an informational memorandum each month during expiration week reminding members/participants on which day that month's options contracts will expire and explaining that the option that will be listed to replace the expiring option will have a Friday expiration. Furthermore, the informational memorandum will also show the expiration date for all outstanding FCO option contracts. Finally, any time a new series is added to an existing option, an additional informational memorandum will be distributed to remind the public which expiration day is applicable. Accordingly, the Commission believes that the potential for undue confusion will be substantially decreased, thus minimizing the Commission's concerns about investor protection.

The Commission finds good cause for approving the proposed rule change prior to the thirtieth day after the date of publication of notice of filing thereof in the **Federal Register**. The Commission has already granted approval for listing, and the Exchange has listed, its June 1995 FCOs with Friday expirations.[11] On Sunday, July 18, 1993, the Exchange will list new series of FCOs which will expire in mid-October, 1993. By accelerating approval of the proposal and thus allowing the Exchange to list these and all subsequent series of FCOs with Friday expirations, the Commission believes that the potential for customer confusion will be reduced during the transition period. Furthermore, by granting accelerated approval, the Exchange will have sufficient time prior to the listing of the October mid-month FCOs to notify its members of the change.[12] As a result, the Commission believes that by granting accelerated approval of the proposal, the Commission's concerns for investor protection during the transition period will be further minimized. Finally, the proposal was published for the full 21 day comment period and no comments were received.

It is therefore ordered, Pursuant to section 19(b)(2) of the Act,[13] that the proposed rule change (SR–PHLX–93–02) is hereby approved on an accelerated basis.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[14]

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 93–17146 Filed 7–19–93; 8:45 am]

BILLING CODE 8010–01–M

[11] See Exchange Act Release No. 32452, *supra* [illegible]

[12] The PHLX has represented that it will provide written notice of the change to its members no later than Wednesday, July 14, 1993. Telephone conversation between Michele R. Weisbaum, Associate General Counsel, PHLX, and Bradley S Ritter, Attorney, Division of Market Regulation, Commission, July 12, 1993. See Draft Information Circular: 0–93, from PHLX Market Surveillance Department to Members.

[13] 15 U.S.C. 78s(b)(2) (1988).

[14] 17 CFR 200.30–3(a)(12) (1992).

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Advisory Circular; Aircraft Engine Type Certification Handbook

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of issuance of advisory circular.

SUMMARY: This notice announces the issuance of Advisory Circular (AC), No. 33–2B, Aircraft Engine Type Certification Handbook. The AC provides information and guidance concerning an acceptable method, but not the only method, by which compliance with the type certification requirements of aircraft engines, as required by Federal Aviation Regulations (FAR) part 33, may be accomplished.

DATES: Advisory Circular No. 33–2B was issued by the New England Aircraft Certification Service, Engine and Propeller Directorate, on June 30, 1993

FOR FURTHER INFORMATION CONTACT: Federal Aviation Administration (FAA), Attn: Chung Hsieh, Engine and Propeller Standards Staff, ANE–110, Engine and Propeller Directorate, Aircraft Certification Service, 12 New England Executive Park, Burlington, Massachusetts 01803–5299, telephone (617) 238–7116, fax (617) 238–7199

SUPPLEMENTARY INFORMATION: Interested parties were given the opportunity to review and comment on the draft AC during the proposal and development phases. Notice was published in the **Federal Register** (54 FR 21517), May 18, 1989, to announce the availability of, and request comments to, the draft AC. All comments were reviewed and appropriate comments are incorporated in the AC.

This advisory circular, published under the authority granted to the Administrator by 49 U.S.C. 106(g), 49 U.S.C. App. 1354(a), 1421 and 1423, provides procedures and guidance by which engine manufacturers, engine modifiers, issuance of an engine type certificate, an amended type certificate, or a supplemental type certificate.

Issued in Burlington, Massachusetts, on June 30, 1993.

Jay J. Pardee,

Asst. Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 93–17168 Filed 7–19–93; 8:45 am]

BILLING CODE 4910–13–M

Intent to Rule on Application to Impose and Use the Revenue From a Passenger Facility Charge (PFC) at Aspen-Pitkin County Airport/Sardy Field, Aspen, CO

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of intent to rule on application.

SUMMARY: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Aspen-Pitkin County Airport/Sardy Field under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (title IX of the Omnibus Budget Reconciliation Act of 1990) (Public Law 101–508) and part 158 of the Federal Aviation Regulations (14 CFR part 158).

DATES: Comments must be received on or before August 19, 1993.

ADDRESSES: Comments on this application may be mailed or delivered in triplicate to the FAA at the following address: Alan E. Wiechmann, Manager, Denver Airports District Office, DEN–ADO, Federal Aviation Administration, 5440 Roslyn, suite 300, Denver, CO 80216–6026.

In addition, one copy of any comments submitted to the FAA must be mailed or delivered to Mr. Scott Smith, Director of Aviation, Aspen, Colorado at the following address: Aspen-Pitkin County Airport/Sardy Field, 0233 East Airport Road, Aspen, CO 81611.

Air carriers and foreign air carriers may submit copies of written comments previously provided to the Aspen-Pitkin County Airport/Sardy Field under § 158.23 of part 158.

FOR FURTHER INFORMATION CONTACT: Mr. Brad Davis, (303) 286–5526; Denver Airports District Office, DEN–ADO; Federal Aviation Administration; 5540 Roslyn, suite 300, Denver, Colorado 80216–6026. The application may be reviewed in person at this same location.

SUPPLEMENTARY INFORMATION: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Aspen-Pitkin County Airport/Sardy Field under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (title IX of the Omnibus Budget Reconciliation Act of 1990) (Public Law 101–508) and part 158 of the Federal Aviation Regulations (14 CFR part 158).

On June 16, 1993, the FAA determined that the application to impose and use the revenue from a PFC submitted by Pitkin County was not substantially complete within the requirements of § 158.29(a)(i)(v) of part 158. The following item was required to complete the application: The FAA required supporting information from Pitkin County to demonstrate that Pitkin County Ordinance No. 90–12, enacted November 27, 1990, is either not subject to or was adopted in compliance with section 9304(e) of Airport Noise and Capacity Act of 1990 (ANCA) and part 161 of the Federal Aviation Regulations (14 CFR part 161).

By letter dated June 30, 1993, Pitkin County declined to provide the supplemental information requested to complete this application. The FAA will approve or disapprove the application, in whole or in part, no later than September 29, 1993.

The following is a brief overview of the application.

Level of the proposed PFC: $3.00
Proposed charge effective date: December 1, 1993
Proposed charge expiration date: June 30, 1996
Total estimated PFC revenue: $1,533,541.00
Brief description of proposed projects: Relocate State Highway 82; overlay runway 15/33.
Class or classes of air carriers which the public agency has requested not be required to collect PFCs: Air Taxi/Commercial operators operating pursuant to FAR part 135.1, subpart a.3.

Any person may inspect the application in person at the FAA office listed above under "**FOR FURTHER INFORMATION CONTACT**" and at the FAA regional Airports office located at: Federal Aviation Administration, Northwest Mountain Region, Airports Division, ANM–600, 1601 Lind Avenue SW., suite 540; Renton, WA 98055–4056.

In addition, any person may, upon request, inspect the application, notice and other documents germane to the application in person at the Aspen-Pitkin County Airport/Sardy Field.

Issued in Renton, Washington on July 8, 1993.

Jack A. Scott,

Acting Manager, Airports Division, Northwest Mountain Region.

[FR Doc. 93–17163 Filed 7–19–93; 8:45 am]

BILLING CODE 4910–13–M

Intent To Rule on Application To Impose and Use the Revenue From a Passenger Facility Charge (PFC) at Columbus Metropolitan Airport, Columbus, GA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of intent to rule on application.

SUMMARY: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Columbus Metropolitan Airport under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (title IX of the Omnibus Budget Reconciliation Act of 1990) (Pub. L. 101–508) and part 158 of the Federal Aviation Regulations (14 CFR part 158).

DATES: Comments must be received on or before August 19, 1993.

ADDRESSES: Comments on this application may be mailed or delivered in triplicate to the FAA at the following address: Atlanta Airports District Office, 1680 Phoenix Parkway, suite 101, Atlanta, Georgia 30349.

In addition, one copy of any comments submitted to the FAA must be mailed or delivered to Mr. Mark Oropeza, Airport Director of the Columbus Airport Commission at the following address: 3250 West Britt David Road, Columbus, Georgia 31909–5399.

Air carriers and foreign air carriers may submit copies of written comments previously provided to the Columbus Airport Commission under § 158.23 of part 158.

FOR FURTHER INFORMATION CONTACT: Ms. Cathy Nelmse, Program Manager, Atlanta Airports District Office, 1680 Phoenix Parkway, suite 101, Atlanta, Georgia 30349, telephone number (404) 994–5306. The application may be reviewed in person at this same location.

SUPPLEMENTARY INFORMATION: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Columbus Metropolitan Airport under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (title IX of the Omnibus Budget Reconciliation Act of 1990) (Public Law 101–508) and part 158 of the Federal Aviation Regulations (14 CFR part 158).

On July 2, 1993, the FAA determined that the application to impose and use the revenue from a PFC submitted by Columbus Airport Commission was substantially complete within the requirements of § 158.25 of part 158. The FAA will approve or disapprove the application, in whole or in part, no later than October 2, 1993.

The following is a brief overview of the application.

Level of the proposed PFC: $3.00
Proposed charge effective date: October 1, 1993
Proposed charge expiration date: January 31, 1997
Total estimated PFC revenue: $1,220,000
Brief Description of proposed project(s):
a. Airfield signage
b. Airfield lighting rehabilitation
c. Standby emergency airfield generator
d. Easement acquisition and approach clearing
e. Taxiway "F" extension
f. Rehabilitate runway 12/30
g. Taxiway "C" reconstruction
h. Terminal building demolition
i. Master plan update
j. Airport security vehicle
k. North general aviation apron rehabilitation
Class or classes of air carriers which the public agency has requested not be required to collect PFCs: None

Any person may inspect the application in person at the FAA office listed above under "FOR FURTHER INFORMATION CONTACT".

In addition, any person may, upon request, inspect the application, notice and other documents germane to the application in person at the Columbus Airport Commission.

Issued in Atlanta, Georgia on July 6, 1993.

Stephen A. Brill,

Manager, Airports Division, Southern Region.

[FR Doc. 93–17164 Filed 7–19–93; 8:45 am]

BILLING CODE 4910–13–M

Intent To Rule on Application To Impose and Use a Passenger Facility Charge (PFC) at Gunnison County Airport, Gunnison, CO

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of intent to rule on Application.

SUMMARY: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Gunnison County Airport under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (title IX of the Omnibus Budget Reconciliation Act of 1990) (Pub. L. 101–508) and part 158 of the Federal Aviation Regulations (14 CFR part 158.

DATES: Comments must be received on or before August 19, 1993.

ADDRESSES: Comments on this application may be mailed or delivered in triplicate to the FAA at the following address: Alan Wiechmann, Manager, Denver Airports District Office, DEN-ADO, Federal Aviation Administration, 5440 Roslyn, suite 330, Denver, CO 80216–6026.

In addition, one copy of any comments submitted to the FAA must be mailed or delivered to Mr. Gary R. Tomsic, County Manager, Gunnison, Colorado, at the following address: 711 West Rio Grande Avenue, suite 15, Gunnison, Colorado 81230.

Air carriers and foreign air carriers may submit copies of written comments previously provided to Gunnison County, under § 158.23 of part 158.

FOR FURTHER INFORMATION CONTACT: Mr. Chris Schaffer, (303) 286–5525; Denver Airports District Office, DEN-ADO; Federal Aviation Administration; 5440 Roslyn, suite 300; Denver, Colorado 80216–6026. The application may be reviewed in person at this same location.

SUPPLEMENTARY INFORMATION: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Gunnison County Airport, under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (title IX of the Omnibus Budget Reconciliation Act of 1990) (Public Law 101–508) and part 158 of the Federal Aviation Regulations (14 CFR part 158).

On May 25, 1993, the FAA determined that the application to impose and use a PFC submitted by Gunnison County was substantially complete within the requirements of § 158.25 of part 158. The FAA will approve or disapprove the application, in whole or in part, no later than August 27, 1993.

The following is a brief overview of the application.

Level of the proposed PFC: $3.00

Proposed charge effective date: November 1, 1993

Proposed charge expiration date: February 28, 2000

Total estimated PFC revenue: $989,118.00

Brief description of proposed projects: Expand passenger terminal building; terminal building safety modifications, install taxiway guidance signs, modify airport electric vault; expand air carrier apron; install security access control system; acquire new ARFF vehicle; construct parallel taxiway to end of runway 6; rehabilitate and expand GA apron; relocate buildings; update airport master plan; overlay runway 6/24 and apply porous friction course; acquire snow removal equipment and acquire land.

Class or classes of air carriers which the public agency has requested not be required to collect PFCs: None.

Any person may inspect the application in person at the FAA office listed above under "FOR FURTHER INFORMATION CONTACT" and at the FAA regional Airports office located at: Federal Aviation Administration, Northwest Mountain Region, Airports Division, ANM–600, 1601 Lind Avenue SW., Suite 540, Renton, WA 98055–4056.

In addition, any person may, upon request, inspect the application, notice and other documents germane to the application in person at Gunnison County Airport

Issued in Renton, Washington on July 8, 1993.

Jack A. Scott,

Acting Manager, Airports Division, Northwest Mountain Region.

[FR Doc. 93–17162 Filed 7–6–93; 8:45 am]

BILLING CODE 4910–13–M

Federal Highway Administration

Environmental Impact Statement: Clark County, WA

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of intent.

SUMMARY: The FHWA is issuing this notice to advise the public that an environmental impact statement will be prepared for a proposed roadway project in the City of Vancouver, Clark County, Washington.

FOR FURTHER INFORMATION CONTACT: Barry F. Morehead, Division Administrator, FHWA, 711 Capitol Way, suite 501, Olympia, Washington 98501, Telephone: 206–753–9413 or Gerald Smith, District Administrator—WSDOT, 4200 Main Street, Vancouver, Washington 98668, Telephone: 206–696–6437 or Thayer Rorabaugh, Manager of Transportation, City of Vancouver, 210 East 13th Street, Vancouver, Washington 98660, Telephone: 206–696–8200.

SUPPLEMENTARY INFORMATION: The FHWA, in cooperation with the Washington State Department of Transportation and the City of Vancouver will prepare an environmental impact statement (EIS) on a proposal to extend the Mill Plain Boulevard/15th Street Couplet westward approximately 1.5 miles from its present terminus at Columbia Street in the City of Vancouver to a new terminus at Forth Plain Boulevard. The proposal would involve the construction of approximately 1.5 miles of new 4-lane roadway westward along the present 15th Street, a new bridge crossing of the Burlington Northern rail yard, and a new roadway running northwesterly through the Port of Vancouver from the end of the bridge to intersect Fourth Plain Boulevard near Weigel Street.

Improvements to the roadway are considered necessary to provide adequate access from downtown Vancouver and I–5 to the Port of Vancouver and areas west of the Port. A corridor study was conducted about ten years ago to determine the best way to provide improved access to the Port to accommodate the expected doubling of its employment between 1990 and 2010. After evaluating five main corridor alternatives connection I–5 to the Port, the study determined that the Mill Plain corridor was the best choice because it provides the most direct connection, it reinforces the business relationship between the downtown area and the Port, it better utilizes the existing investment in the I–5/Mill Plain

interchange, and it improves the internal circulation in the Port for vehicles and, potentially, the railroad. For this reason, the only other alternative under consideration is the No-build.

Environmental issues that are expected to be of greatest concern are: historic resources, noise, traffic, air quality, dislocation of residents and businesses, and localized economic and land use impacts.

Letters describing the proposed action and soliciting comments have been sent by the City of Vancouver to appropriate Federal, State and local agencies and to private organizations and citizens. A public involvement program involving the formation of advisory groups and several public meetings is part of the proposed EIS process. Public notice will be given of all such meetings. The draft EIS will be available for public and agency review prior to the public hearing. No formal scoping meeting is planned at this time.

To ensure that the full range of issues related to this proposed action are addressed and all significant issues identified, comments and suggestions are invited from all interested parties. Comments or questions concerning this proposed action and the EIS should be directed to the FHWA at the address provided above.

(Catalogue of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program)

Issued on July 2, 1993.

Lynn A. Porter,

Area Engineer, FHWA, Washington Division.

[FR Doc. 93–17132 Filed 7–19–93; 8:45 am]

BILLING CODE 4910-22-M

Research and Special Programs Administration (RSPA)

Meetings of Pipeline Safety Advisory Committees

Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92–463, 5 U.S.C. App.1) notice is hereby given of the following meetings of the Technical Pipeline Safety Standards Committee (TPSSC) and the Technical Hazardous Liquid Pipeline Safety Standards Committee (THLPSSC). Each Committee meeting as well as a joint session of the two Committees will be held in room 8236 of the U.S. Department of Transportation Building, 400 Seventh Street, SW., Washington, DC.

On August 3, 1993, at 8:30 a.m., the TPSSC will meet to discuss and vote on the technical feasibility, reasonableness, and practicability of proposed rules regarding:

—Passage of Instrumental Internal Inspection Devices (NPRM issued November 20, 1992; 57 FR 54745)

—Excess Flow Valve Installation on Service Lines (NPRM issued April 21, 1993; 58 FR 21524)

In addition, the agenda will include a presentation by the Gas Research Institute (GRI) on potential GRI/Office of Pipeline Safety (OPS) cofunding research projects.

At 1 p.m., the TPSSC will be joined by members of the THLPSSC for a joint session which will include:

1. RSPA Acting Administrator's Overview
2. Status Reports on Various Pipeline Safety Program Issues (budget, environmental review of the pipeline safety program, OPS work redesign, and regulations in progress)
3. Overview and status of OPS' risk assessment prioritization process, including the Committees role in the process and trial rating of solutions

On August 4, 1993, at 9 a.m., the joint TPSSC–THLPSSC session on risk assessment prioritization will continue. It will be followed by a group discussion on growing data needs/innovative ways of collecting data. Finally, a group discussion on expanding the Committee's role beyond regulatory review will close out the joint session at 12 noon.

At 1 p.m., the THLPSSC will meet to discuss and vote on the technical feasibility, reasonableness, and practicability of proposed rules regarding:

—Passage of Instrumented Internal Inspection Devices (NPRM issued November 20, 1992; 57 FR 54745)

—Transportation of a Hazardous Liquid in Pipelines Operating at 20 Percent or Less of Specified Minimum Yield Strength (NPRM issued March 3, 1993; 58 FR 12213)

In addition, THLPSSC industry members will give their perspectives on the impact of the environmental requirements in the Pipeline Safety Act of 1992 on the pipeline industry. Finally, OPS staff will provide a briefing on Oil Pollution Act initiatives.

Each meeting will be open to the public, but attendance will be limited to the space available. Please Note That Attendance Will Particularly Be Limited During The Joint Session Of The Two Committees Because Of Space Constraints. Members of the public may present oral statements on the topics. Due to the limited time available, each person who wants to make an oral statement must notify Rebecca Key, room 2335, Department of Transportation Building, 400 Seventh Street, SW., Washington, DC 20590, telephone (202) 366–1640, not later than Tuesday, July 27, 1993, of the topics to be addressed and the time requested to address each topic. The presiding officer may deny any request to present an oral statement and may limit the time of any oral presentation. Members of the public may present written statements to the Committees before or after any meeting.

Issued in Washington, D.C., on July 14, 1993.

Richard L. Beam,

Deputy Associate Administrator.

[FR Doc. 93–17120 Filed 7–19–93; 8:45 am]

BILLING CODE 4910-60-M

DEPARTMENT OF THE TREASURY

Public Information Collection Requirements Submitted to OMB for Review

July 14, 1993.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1980, Public Law 96–511. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, room 3171 Treasury Annex, 1500 Pennsylvania Avenue, NW., Washington, DC 20220.

Internal Revenue Service

OMB Number: New
Form Number: IRS Form AA
Type of Review: New collection
Title: Internal Revenue Service (IRS) Applicant/Employee Data Form
Description: The IRS does not have a recruitment tracking system in place. This form will allow the Service to determine where (schools) we are getting our applicants from, their academic background, and correlate that information with their career movement. To properly measure the data, we need to have applicants interested in our positions complete the data form.
Respondents: Individuals or households, Federal agencies or employees

Estimated Number of Respondents: 6,000
Estimated Burden Hours Per Respondent: 10 minutes
Frequency of Response: Semi-annually, Annually
Estimated Total Reporting Burden: 960 hours
OMB Number: New
Form Number: IRS Form RNO 91819
Type of Review: New Collection
Title: Internal Revenue Service (IRS) Race and National Origin for Applicants/Employees
Description: The Internal Revenue Services does not have a form for the collection of Race and National Origin Identification from applicants. This scanning form on its own and when combined with other IRS tracking forms (i.e., Form AA) will allow the Service to determine its applicant/employee pool, and thereby, enhance its recruitment plan.
Respondents: Individuals or households, Federal agencies or employees
Estimated Number of Respondents: 6,000
Estimated Burden Hours Per Respondent: 3 minutes
Frequency of Response: Semi-annually, Annually
Estimated Total Reporting Burden: 300 hours
OMB Number: 1545–0619
Form Number: IRS Form 6765
Type of Review: Revision
Title: Credit for Increasing Research Activities (or for claiming the orphan drug credit)
Description: IRC section 38 allows a credit against income tax (determined under the IRC section 41) for an increase in research activities of a trade or business. Section 28 allows a credit for clinical testing expenses in connection with drugs for certain rare diseases. Form 6765 is used by businesses and individuals engaged in a trade or business to figure and report the credit. The data is used to verify that the credit claimed is correct.
Respondents: Businesses or other for-profit, Small businesses or organizations
Estimated Number of Respondents/Recordkeepers: 13,500
Estimated Burden Hours Per Respondent/Recordkeeper:
Recordkeeping—8 hours, 51 minutes
Learning about the law or the form—53 minutes
Preparing and sending the form to the IRS—1 hour, 5 minutes
Frequency of Response: On occasion
Estimated Total Reporting/Recordkeeping Burden: 146,070 hours
OMB Number: 1545–1004
Form Number: IRS Form 1120–REIT
Type of Review: Revision
Title: U.S. Income Tax Return for Real Estate Investment Trusts
Description: Form 1120–REIT is filed by a corporation, trust, or association electing to be taxed as a REIT in order to report its income and deductions and to compute its tax liability. IRS uses Form 1120–REIT to determine the REIT has correctly reported its income, deductions, and tax liability.
Respondents: Businesses or other for-profit
Estimated Number of Respondents/Recordkeeper: 176
Estimated Burden Hours Per Respondent/Recordkeeper:
Recordkeeping—57 hours, 24 minutes
Learning about the law or the form—18 hours, 21 minutes
Preparing the form—36 hours, 50 minutes
Copying, assembling, and sending the form to the IRS—4 hours, 50 minutes
Frequency of Response: Annually
Estimated Total Reporting/Recordkeeping Burden: 20,665 hours
Clearance Officer: Garrick Shear, (202) 622–3869, Internal Revenue Service, room 5571, 1111 Constitution Avenue, NW., Washington, DC 20224.
OMB Reviewer: Milo Sunderhauf, (202) 395–6880, Office of Management and Budget, room 3001, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,
Departmental Reports Management Officer.
[FR Doc. 93–17099 Filed 7–19–93; 8:45 am]
BILLING CODE 4830–01–P

Public Information Collection Requirements Submitted to OMB for Review

July 14, 1993.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1980, Public Law 96–511. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, room 3171 Treasury Annex, 1500 Pennsylvania Avenue NW., Washington, DC 20220.

Internal Revenue Service

OMB Number: 1545–0119
Form Number: IRS Form 1099–R
Type of Review: Extension
Title: Distributions From Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc.
Description: Form 1099–R is used to report distributions from pensions, annuities, profit-sharing or retirement plans, IRAs, and the surrender of insurance contracts. This information is used by IRS to verify that income has been properly reported by the recipient.
Respondents: State or local governments, Businesses or other for-profit, Federal agencies or employees, Non-profit institutions, Small businesses or organizations
Estimated Number of Respondents: 350,000
Estimated Burden Hours Per Respondent: 20 minutes
Frequency of Response: Annually
Estimated Total Reporting Burden: 14,190,000 hours
OMB Number: 1545–1079
Form Number: IRS Form 9041
Type of Review: Revision
Title: Application for Electronic/Magnetic Media Filing of Business and Employee Benefit Plan Returns
Description: Form 9041 will be filed by fiduciaries, partnerships, and plan sponsors/administrators as an application to file their returns electronically or on magnetic media; and by software firms, service bureaus, and electronic transmitters to develop auxiliary services.
Respondents: Businesses or other for-profit
Estimated Number of Respondents: 3,000
Estimated Burden Hours Per Respondent: 18 minutes
Frequency of Response: Annually
Estimated Total Reporting Burden. 900 hours
Clearance Officer: Garrick Shear, (202) 622–3869, Internal Revenue Service, room 5571, 1111 Constitution Avenue NW., Washington, DC 20224.
OMB Reviewer: Milo Sunderhauf, (202) 395–6880, Office of Management and Budget, room 3001, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,
Departmental Reports Management Officer.
[FR Doc. 93–17100 Filed 7–19–93; 8:45 am]
BILLING CODE 4830–01–P

Rechartering of the Treasury Borrowing Committee of the Public Securities Association

AGENCY: Treasury Department, Departmental Offices.

ACTION: Notice of determination of necessity for renewal of the Treasury Borrowing Advisory Committee of the Public Securities Association.

SUMMARY: It is in the public interest to continue the existence of the Treasury Borrowing Advisory Committee of the Public Securities Association.

The Department of the Treasury announces the renewal of the charter for the Treasury Borrowing Advisory Committee of the Public Securities Association in accordance with the Federal Advisory Committee Act, 5 U.S.C. app. I.

The Secretary of the Treasury has determined that the renewal of this committee is necessary and in the public interest. This determination follows consultation with the Committee Management Secretariat, General Services Administration.

Purpose

The committee provides informed advice as representatives of the financial community to the Secretary of the Treasury and Treasury staff, upon the Secretary of the Treasury's request, in carrying out Federal financing and in the management of the public debt.

Scope

The committee considers commercial and financial information relevant to its objectives and consults with and advises the Secretary of the Treasury and Treasury staff with respect to debt management operations, and makes reports and recommendations.

Meetings are closed to the public since all portions of the meeting concern matters that are exempt from disclosure under the provision of subsection 552b(c)(9)(A) of title 5 of the United States Code, and that the public interest requires that such meetings be closed to the public.

Although Treasury's final announcement of financing plans may not reflect the recommendations provided in reports of an advisory committee, premature disclosure of these recommendations would lead to significant financial speculation in the securities markets. Thus, these meetings also fall within the exception covered by subsection 552(b)(c)(9)(A) of title 5 of the United States Code.

Membership consists of 20–25 members who are experts in Government securities markets, involved in a senior position in debt markets as investor, investment advisor, or as a dealer, in debt securities and are appointed by the Public Securities Association from its association membership. Members must be highly competent, experienced and actively involved in financial markets. Effort is made to get regional representation so that committee views are a reasonable proxy for nationwide views. As far as possible, balance between dealers and investors is sought. From time to time, members are added or deleted to reflect changing responsibilities and to provide for a rotation of membership in areas where more than one qualified candidate may be available.

Statement of Public Interest

It is in the public interest to continue the existence of the Treasury Borrowing Advisory Committee of the Public Securities Association. The Secretary of the Treasury, with the concurrence of the General Services Administration, has also approved renewal of the committee.

Authority for this committee will expire two years from the date the charter is filed with the appropriate Congressional committees, unless prior to the expiration of its charter, the committee is renewed.

The Assistant Secretary (Management) has determined that his document is not a major rule as defined in Executive Order 12291 and that a regulatory impact analysis therefore is not required. Neither does this document constitute a rule subject to the Regulatory Flexibility Act (5 U.S.C. chapter 6).

In accordance with the Federal Advisory Committee Act (Pub. L. 92–463) the Department of the Treasury has renewed the charter of the Treasury Borrowing Advisory Committee of the Public Securities Association and approved the following membership:

Daniel A. Ahearn, Partner, Wellington Management Co., 75 State Street, Boston, MA 02109.

Thomas Bennett, partner, Miller Anderson & Sherrerd, One Tower Bridge, West Conshohocken, PA 19428.

Louis Betanzos, Executive Vice President, National Bank of Detroit, 611 Woodward Avenue, Detroit, MI 48226.

Jon S. Corzine, Partner, Goldman, Sachs & Company, 85 Broad Street, New York, NY 10004.

Ralphael de la Gueronniere, Chairman, Discount Corporation of New York, 58 Pine Street, New York, NY 10005.

Kenneth de Regt, Managing Director, Morgan Stanley & Company, 25 Cobot Square, Canary Wharf, London E14 4QA, England.

Richard Kelly, Chairman of the Board, Aubrey G. Lanston & Co., Inc., 1 Chase Manhattan Pl. 53rd Fl., New York, NY 10005.

Mark F. Kessenich, Jr., President, Eastbridge Capital, Inc., 135 East 56th Street, New York, NY 10022.

Bruce R. Lakefield, Managing Director, Lehman Brothers, 200 Vesey Street, 9th Fl., New York, NY 10285.

Robert D. McKnew, Executive Vice President, Bank of America, 555 California Street, 10th Fl., San Francisco, CA 94104.

Gregory C. Menne, Vice President, A.G. Edwards & Sons, Inc., One North Jefferson, St. Louis, MO 63103.

Daniel T. Napoli, Senior Vice President & Director, Merrill Lynch Capital Markets & Risk Management, World Financial Center, N. Tower, New York, NY 10281.

Richard B. Roberts, Exec. Vice President, Wachovia Bank & Trust Co., NA, P.O. Box 3099, Winston-Salem, NC 27105.

Marcy Recktenwald, Managing Director, BT Securities, Inc., 130 Liberty Street, New York, NY 10006.

Joseph Rosenberg, President, Lawton General Corporation, 667 Madison Avenue, New York, NY 10021–8087.

Stephen Thieke, Managing Director, Morgan Guaranty Trust Co., 60 Wall Street, 4th Fl., New York, NY 10260.

Craig M. Wardlaw, Exec. Vice President, NationsBank Corporation, Nationsbank Corporate Center, Charleston, NC 28255–0001.

Patricia Zlotin, Exec. Vice President, Massachusetts Financial Services Co., 500 Boylston Street, Boston, MA 021167.

Dated: July 14, 1993.

Deborah M. Witchey,

Acting Assistant Secretary (Management).

[FR Doc. 93–17180 Filed 7–19–93; 8:45 am]

BILLING CODE 4810–25–M

Customs Service

[T.D. 93–54]

Surrender of Customs Broker License; Joseph Jacovina

AGENCY: U.S. Customs Service, Department of the Treasury.

ACTION: General notice.

SUMMARY: Notice is hereby given that on September 4, 1992, the Secretary of the Treasury, pursuant to section 641, Tariff Act of 1930, as amended, (19 U.S.C. 1641), and § 111.51(b) of the Customs Regulations, as amended (19 CFR 111.51(b)), accepted the surrender of the license issued to Joseph Jacovina (no. 3294) in the New York Customs Region to conduct Customs business.

Dated: July 13, 1993.

Philip Metzger,

Director, Office of Trade Operations.

[FR Doc. 93–17101 Filed 7–19–93; 8:45 am]

BILLING CODE 4820–02–M

[T.D. 93–56]

Suspension of Individual Customs Broker License No. 6707; Enrique Wismann

AGENCY: U.S. Customs Service, Department of the Treasury.

ACTION: General notice.

SUMMARY: Notice is hereby given that on June 21, 1993, the Secretary of the Treasury, pursuant to section 641, Tariff Act of 1930, as amended, (19 U.S.C. 1641), and § 111.74 of the Customs Regulations, as amended (19 CFR 111.74), suspended the individual broker license no. 6707 issued to Enrique Wismann for a period of 180 days. This action is effective as of June 22, 1993.

Dated: July 13, 1993.

Philip Metzger,

Director, Office of Trade Operations.

[FR Doc. 93–17103 Filed 7–19–93; 8:45 am]

BILLING CODE 4820–02–M

[T.D. 93–55]

Surrender of Customs Broker License; Wood, Niebuhr & Co.

AGENCY: U.S. Customs Service, Department of the Treasury.

ACTION: General notice.

SUMMARY: Notice is hereby given that on September 4, 1992, the Secretary of the Treasury, pursuant to section 641, Tariff Act of 1930, as amended, (19 U.S.C. 1641), and § 111.51(b) of the Customs Regulations, as amended (19 CFR 111.51(b)), accepted the surrender of the license issued to Wood, Niebuhr & Co. (no. 4814) in the New York Customs Region to conduct Customs business.

DATED: July 13, 1993.

Philip Metzger,

Director, Office of Trade Operations.

[FR Doc. 93–17102 Filed 7–19–93; 8:45 am]

BILLING CODE 4820–02–M

Sunshine Act Meetings

Federal Register
Vol. 58, No. 137
Tuesday, July 20, 1993

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

DEPARTMENT OF JUSTICE

UNITED STATES PAROLE COMMISSION

Public Announcement

Pursuant To The Government In the Sunshine Act

(Public Law 94–409) [5 U.S.C. Section 552b]

TIME AND DATE: 1:30 p.m., Tuesday, July 27, 1993.

PLACE: 5550 Friendship Boulevard, Chevy Chase, Maryland, 20815.

STATUS: Open.

MATTERS TO BE CONSIDERED: The following matters have been placed on the agenda for the open Parole Commission meeting:

1. Approval of minutes of previous Commission meeting.
2. Reports from the Chairman, Commissioners, Legal, Chief of Staff, Case Operations, and Administrative Sections.
3. Controlling the Use of Express Mail.
4. Change of Policy With Respect To Applying The Sentencing Guidelines In Effect At The Time Of The Crime For Transfer Treaty Cases.
5. Establishment of "The Victor M.F. Reyes Memorial Award".
6. Proposal For New Regulation Regarding An Appeal of a Freedom of Information Act (FOIA) Denial To The Chairman.
7. Revision of the Procedure at 2.56–01(h), Regarding The Processing of Police Reports under FOIA.
8. Discussion of Bureau of Prisons and U.S. Probation Service Comprehensive Sanctions Centers.
9 Rating the Offense of Possession of Ammunition by a Convicted Felon.
10. Paroling Policy With Respect To First Degree Murder.
11. Offender Reimbursement For Drug Testing Services.
12. Discussion of The Validity of The Salient Factor As A Risk Predictive Device.
13. Modification of F–3 Supervision Report.

The following matters have been placed on the consent agenda and will be considered at the open meeting only if a Parole Commissioner requests that they be discussed at the meeting.

14. Processing of Institutional Parole Violator Cases Outside the Originating Region.
15. Wording For Partial Forfeiture Of Street Time Orders.
16. Wording On Notices Of Action When Adding The Community Corrections Center (CCC) Aftercare Condition.

AGENCY CONTACT: Tom Kowalski, Case Operations, United States Parole Commission, (301) 492–5962.

Dated: July 15, 1993.

Michael A. Stover,

General Counsel, U.S. Parole Commission.

[FR Doc. 93–17333 Filed 7–16–93; 2:30 pm]

BILLING CODE 4410–01–M

DEPARTMENT OF JUSTICE

UNITED STATES PAROLE COMMISSION

Public Announcement

Pursuant To The Government In the Sunshine Act

(Public Law 94–409) [5 U.S.C. Section 552b]

DATE AND TIME: Tuesday, July 27, 1993, 9:00 a.m.

PLACE: 5550 Friendship Boulevard, Chevy Chase, Maryland, 20815.

STATUS: Closed-Meeting.

MATTERS CONSIDERED: The following matters will be considered during the closed portion of the Commission's Business Meeting:

(1) Appeals to the Commission involving nineteen cases decided by the National Commissioners pursuant to a reference under 28 C.F.R. 2.27. These cases were originally heard by an examiner panel wherein inmates of Federal prisons have applied for parole or are contesting revocation of parole or mandatory release.

(2) Discussion of Personnel Related Matters.

(3) One application for an exemption submitted under 29 U.S.C. § 504(a).

AGENCY CONTACT: Jeffrey Kostbar, Case Analyst, National Appeals Board, United States Parole Commission, (301) 492–5968.

Dated: July 15, 1993.

Michael A. Stover,

General Counsel, U.S. Parole Commission.

[FR Doc. 93–17334 Filed 7–16–93; 2:30 pm]

BILLING CODE 4410–01–M

NUCLEAR REGULATORY COMMISSION

DATE: Weeks of July 19, 26, August 2, and 9, 1993.

PLACE: Commissioners' Conference Room, 11555 Rockville Pike, Rockville, Maryland.

STATUS: Public and Closed.

MATTERS TO BE CONSIDERED:

Week of July 19

Tuesday, July 20

10:00 a.m.
Briefing on Options for Addressing Shutdown and Low Power Risk Issues (Public Meeting)
(Contact: Ashok Thadani, 301–504–2884)

11:30 a.m.
Affirmation/Discussion and Vote (Public Meeting) (if needed)

1:30 p.m.
Briefing on Overview of NRC Research Program (Public Meeting)
(Contact: George Sege, 301–492–3904)

Week of July 26—Tentative

Thursday, July 29

10:00 a.m.
Briefing on Options for Changes to Regulation of Nuclear Medicine (Public Meeting)
(Contact: Darrel Nash, 301–504–3610)

11:30 a.m.
Affirmation/Discussion and Vote (Public Meeting) (if needed)

Week of August 2—Tentative

Monday, August 2

2:00 p.m.
Briefing on Status of Part 100 Rule Change and Proposed Update on Source Term and Related Issues (Public Meeting)
(Contact: Leonard Soffer, 301–492–3916)

Tuesday, August 3

11:30 a.m.
Affirmation/Discussion and Vote (Public Meeting) (if needed)

Week of August 9—Tentative

Wednesday, August 11

11:30 a.m.
Affirmation/Discussion and Vote (Public Meeting) (if needed)

ADDITIONAL INFORMATION: By a vote of 3–0 (Commissioner de Planque was not present) on July 12, the Commission determined pursuant to U.S.C. 552b(e) and § 9.107(a) of the Commission's rules that Affirmation of "Georgia Power Company—Partial Director's Decision Under 10 C.F.R. § 2.206" be held on July 14, and on less than one week's notice to the public.

Note: Affirmation sessions are initially scheduled and announced to the public on a time-reserved basis. Supplementary notice is provided in accordance with the Sunshine Act as specific items are identified and added to the meeting agenda. If there is no specific subject listed for affirmation, this means that no item has as yet been identified as requiring any Commission vote on this date.

To Verify the Status of Meeting Call (Recording)—(301) 504–1292.

CONTACT PERSON FOR MORE INFORMATION:
William Hill, (301) 504–1661.

Dated: July 16, 1993.

William M. Hill, Jr.,

SECY Tracking Officer, Office of the Secretary.

[FR Doc. 93–17343 Filed 7–16–93; 2:45 pm]

BILLING CODE 7590–01–M

Corrections

Federal Register
Vol. 58, No. 137
Tuesday, July 20, 1993

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 646

[Docket No. 930225-3146; I.D. 052493A]

RIN 0648-AE91

Snapper-Grouper Fishery of the South Atlantic

Correction

In rule document 93-15743 beginning on page 36155 in the issue of Tuesday, July 6, 1993, make the following correction:

On page 36155, in the first column, under **SUMMARY:**, beginning in the seventh line, remove "The intent of the fishery management plan without undue burden on fishermen, and to clarify the regulations."

BILLING CODE 1505-01-D

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. EG93-56-000]

Las Vegas Energy Storage Limited Partnership; Application for Determination of Exempt Wholesale Generator Status

Correction

In notice document 93-16045 appearing on page 36680 in the issue of Thursday, July 8, 1993, in the second column, the Docket No. should read as set forth above.

BILLING CODE 1505-01-D

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[CP93-525-000]

Northwest Pipeline Corp.; Request Under Blanket Authorization

Correction

In notice document 93-16266 beginning on page 36955 in the issue of Friday, July 9, 1993, on page 36955, in the third column, the Docket No. should read as set forth above.

BILLING CODE 1505-01-D

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for Public and Indian Housing

[Docket No. N-93-3639; FR-3496-N-01]

NOFA for the Rental Voucher Program and Rental Certificate Program

Correction

SUMMARY: On July 8, 1993 (58 FR 36808), the Department published in the **Federal Register** a Notice of Funding Availability (NOFA) for the Rental Voucher Program and Rental Certificate Program. Because of a printing error, a portion of the notice identifying "Other Allocations" was inadvertently omitted in the published document. Therefore, in order to avoid further confusion, this notice republishes section "*J. Other Allocations*", as it appears under "Section II. Application Process," in its entirety. In addition, the "**DATES:, ADDRESSES:,** and **FOR FURTHER INFORMATION CONTACT:**" paragraphs are set forth below for the convenience of the reader.

DATES: Applications for all funding under this NOFA must be received in the HUD Field Office/Indian Programs Office by 3 p.m. local time (i.e., time at the office where the application is submitted) on August 23, 1993.

ADDRESSES: The basic application, Form HUD-52515, may be obtained from, and completed applications are to be submitted to, the appropriate HUD Field Office/Indian Programs Office for the jurisdiction in which the applicant is located (see Section II, Applications Processing, of the NOFA). (Attachment 1 is the Application form.)

FOR FURTHER INFORMATION CONTACT: Gerald J. Benoit, Director, Operations Branch, Rental Assistance Division, Office of Public and Indian Housing, room 4220, Department of Housing and Urban Development, 451 Seventh Street, SW. Washington, DC 20410-8000, telephone (202) 708-0477. Hearing-or speech-impaired individuals may call HUD's TDD number (202) 708-4594. (These telephone numbers are not toll-free.)

Accordingly, notice document 93-16175 beginning on page 36808 in the issue of Thursday, July 8, 1993, is corrected by republishing in its entirety section "*J. Other Allocations*" as it appears under "Section II. Application Process," beginning on page 36812.

J. Other Allocations

In addition to the budget authority for "fair share" rental vouchers and rental certificates, $7.565 billion of additional budget authority (including carryover budget authority) is available for allocation in Fiscal Year 1993 for rental vouchers and rental certificates for the following purposes:

(1) *Public Housing Demolition and Disposition (Relocation and Replacement Housing).* Headquarters will allocate funds directly to the Field Offices to assist families that are living in public housing projects that are being demolished or disposed of with HUD approval. Relocation and replacement housing assistance will be provided in the form of 5-year rental voucher or rental certificate funding. (Approximately 504 units and $16.7 million in budget authority.)

(2) *Rental Voucher and Rental Certificate Renewals.* Headquarters will allocate funds directly to the Field Offices for the renewal of rental voucher and rental certificate funding increments expiring in Fiscal Year 1993. Renewal funding will be provided in-kind (i.e., rental voucher funding for expiring rental voucher increments, and rental certificate funding for expiring rental certificate increments). (Approximately 200,978 units and $6.645 billion in budget authority)

(3) *Section 23 Conversions.* Headquarters will allocate rental certificate funds directly to the Field Offices for tenant-based rental assistance to residents of Section 23 leased housing for which leases are expiring. Field Office requests for funding under this category will be

approved on a first-come, first-served basis. Field Offices must include all data necessary to determine the amount of funds required. (Approximately 381 units and $12.4 million in budget authority.)

(4) *Section 8 Amendments.* Headquarters will allocate Rental Certificate Program cost amendments to provide budget authority increases to HA rental certificate programs to support increases in housing assistance payments to maintain the HA's program at the number of units originally approved by HUD. For consistency with above, Headquarters will allocate the funds on an as needed basis based on actual housing costs and tenant contributions. (Approximately $416.5 million in budget authority.)

(5) *HOPE 1, 2, Section 5(h), Section 18 and Urban Revitalization Programs.* Headquarters will allocate funding to provide replacement housing in connection with Section 18, Urban Revitalization, HOPE 1 or Section 5(h) activities; or relocation assistance to families affected by HOPE 1, HOPE 2 and Section 5(h) program activities; or assistance to non-purchasing families affected by HOPE 2 program activities. Field Office/Indian Programs Office requests for rental certificate or rental voucher funding under this category will be approved on a first-come, first-served basis after notification by HUD that a Section 18, Urban Revitalization, HOPE 1, HOPE 2 or Section 5(h) application was approved. Field Offices/Indian Programs Offices should include all data pertinent to determining the eligibility of the request for funding under the appropriate program and the amount of funds required. (Approximately 2,615 units and $85 million in budget authority.)

(6) *HA Portability Fees.* Headquarters will allocate these funds to pay special preliminary fees to HAs under Rental Voucher and Rental Certificate Program portability provisions. The Department issued a HUD Notice PIH 92-14 (PHA), dated April 22, 1992, that describes administrative procedures for requesting the special preliminary fees. These funds will be allocated to the HUD Regional Offices using the housing needs factors developed in accordance with 24 CFR 791.402. (Approximately $4 million in budget authority.)

(7) *HOPE for Elderly Independence—National Competition.* Headquarters will allcoate funding to assist frail elderly persons to live independently. HUD will conduct a national competition for supportive services grants which will be published in a NOFA. HAs selected in the grant competition also will be provided budget authority for rental vouchers. (Approximately 1,500 and $38.3 million in budget authority.)

(8) *Moving to Opportunity Demonstration—National Competition.* Headquarters will allocate funding to assist families with children to move out of areas with high concentrations of persons living in poverty through contracts with nonprofit organizations. Appropriations were provided for rental certificates and rental vouchers to be used in a demonstration involving up to six cities with populations over 400,000, in metropolitan areas over 1,500,000 population. HUD will conduct a national competition for Section 8 funding. The criteria will be published in a NOFA. (Approximately 1,856 units and $67.7 million in budget authority.)

(9) *Family Unification Demonstration—National Competition.* Headquarters will allocate funding to assist families with children for whom the lack of adequate shelter is a primary factor which would result in the imminent placemnt of the family's child, or children, in out-of-home care or delay in the discharge of the child, or children, to the family from out-of-home care. HUD will conduct a national competition for Section 8 funding. The criteria will be published in a NOFA. (Approximately 2,244 units and $73 million in budget authority.)

(10) *Homeless Persons with Disabilities.* Headquarters will allocate funding to Field Offices to provide Section 8 rental vouchers, in conjunction with supportive services from other Federal, State, or local sources, to homeless persons with disabilities. The assistance is targeted primarily to homeless persons who are seriously mentally ill, have chronic problems with alcohol and/or drugs, or who have acquired immunodeficiency syndrome (AIDS) and related diseases. (Approximately 5,786 units and $147.7 million in budget authority.)

(11) *Veterans Affairs Supportive Housing—National Competition.* Headquarters will allocate funding under this joint effort between HUD and the Department of Veterans Affairs whereby rental vouchers are provided to assist homeless veterans to obtain rental housing after they have received treatment from a Veterans Affairs (VA medical facility. HUD is conducting a national competition. The criteria will be published in a NOFA. (Approximately 750 unitss and $19.1 million in budget authority.)

(12) *Project Based Assistance—Washington, DC.* Headquarters will allocate funding to provide Section 8 rental certificates based on a Congressional mandate for a multi-cultural tenant empowerment and homeownership project to be located in the District of Columbia. (Approximately 205 units and $20 million in budget authority.)

(13) *Disaster Funding from the Federal Emergency Management Agency.* Headquarters allocated funding from the Federal Emergency Management Agency for rental vouchers to the Department to assist very low-income families who were rendered homeless as a result of Hurricane Andrew and Hurricane Iniki. (Approximately 2,459 units and $32 million in budget authority.)

BILLING CODE 1505-01-D

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-32527; File No. SR-MBS-92-04]

Self-Regulatory Organizations, MBS Clearing Corp. Order Approving Proposed Rule Change Relating to the Limitation or Elimination of a Director's Liability in Certain Instances

Correction

In notice document 93-15693 beginning on page 35994 in the issue of Friday, July 2, 1993, on page 35994, in the second column, the Release No. should read as set forth above.

BILLING CODE 1505-01-D

federal register

Tuesday
July 20, 1993

Part II

Environmental Protection Agency

40 CFR Part 51, et al.
Requirements for Preparation, Adoption, and Submittal of Implementation Plans; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 51, 52, 260 and 266

[AH–FRL–4672–7, Docket No. A–88–04]

Requirements for Preparation, Adoption, and Submittal of Implementation Plans

AGENCY: U.S. Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The "Guideline on Air Quality Models (Revised)" (hereinafter, the "Guideline"), as modified by supplement A (1987), sets forth air quality models and guidance for estimating ambient air concentrations due to sources of air pollutants. The Guideline is presently incorporated by reference into the prevention of significant deterioration (PSD) regulations under the Clean Air Act. On February 13, 1991, EPA issued a Notice of Proposed Rulemaking (NPR) to further clarify and update the Guideline, as well as to augment the Guideline with several new modeling techniques, and to codify the Guideline for all air quality planning purposes. Today EPA takes final action in order to add new models to the Guideline and improve existing models. In addition, this action amends the CFR to incorporate supplement B as codified text, as well as giving regulatory status to long-standing EPA policy regarding the use of air quality models for other regulatory programs. Therefore, EPA is setting out the Guideline, revised by supplements A and B, as appendix W to 40 CFR part 51. Adoption of these new and refined modeling techniques and associated guidance should significantly improve the technical basis for impact assessment of air pollution sources.

EFFECTIVE DATE: This rule is effective August 19, 1993.

FOR FURTHER INFORMATION CONTACT: Joseph A. Tikvart, Chief, Source Receptor Analysis Branch, Office of Air Quality Planning and Standards (MD–14), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711; Telephone (919) 541–5562 or C. Thomas Coulter, (919) 541–0832.

ADDRESSES: Docket Statement: All documents relevant to this rule have been placed in Docket No. A–88–04, located in the Central Docket Section, Room M1500 (First Floor, Waterside Mall), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. This docket is available for public inspection and copying from 8:30–12 a.m. and 1:30–3:30 p.m., Monday through Friday. A reasonable fee may be charged for copying.

Document Availability: The new modeling techniques are incorporated as supplement B (1993) to the Guideline. Supplement B may be obtained by downloading a text file from the SCRAM (Support Center for Regulatory Air Models) electronic bulletin board system by dialing in on (919) 541–5742. Supplement B may also be obtained upon written request from the Source Receptor Analysis Branch, U.S. Environmental Protection Agency (MD–14), Research Triangle Park, NC 27711. The "Guideline on Air Quality Models (Revised)" (1986), supplement A (1987), and supplement B (1993) are for sale from the U.S. Department of Commerce, Technical Information Service (NTIS), 5825 Port Royal Road, Springfield, VA 22161. These documents are also available for inspection at each of the ten EPA Regional Offices and at the EPA library at 401 M Street SW, Washington, DC.

SUPPLEMENTARY INFORMATION:

Background [1]

The "Guideline on Air Quality Models" (hereinafter, the "Guideline") was originally published in April 1978. The Guideline promotes consistency in the use of modeling as part of the air management process. By setting forth models, techniques and guidance, the Guideline provides model users with a common basis for estimating pollutant concentrations and impacts, assessing control strategies and specifying emission limits. By rulemaking in June 1978 (43 FR 26380), the Guideline was incorporated by reference into the PSD regulations at 40 CFR 51.166(l) and 52.21(l). The Guideline was subsequently revised in 1986 (51 FR 32176), and later updated with the addition of supplement A (53 FR 392).[2] As a matter of EPA policy, the Guideline has also been applied since its inception to SIP revisions for existing sources of air pollutants and to all new source reviews.

Between 1978 and 1988, in order to support the process of developing and revising the Guideline and in accordance with section 320 of the Clean Air Act, the First, Second, Third and Fourth Conferences on Air Quality Modeling were held. These modeling conferences provided EPA with comments on the Guideline and associated revisions, thereby facilitating introduction of improved modeling techniques into the regulatory process.[3]

On February 13, 1991 (*op. cit.*), EPA proposed additional changes to the Guideline referred to as supplement B. Pursuant to this proposal and Clean Air Act Section 320, the Fifth Conference on Air Quality Modeling was held in March 1991. Its purpose was to solicit public comment on new modeling techniques proposed for inclusion in supplement B, and to guide EPA's consideration of any rulemaking needed to further revise the Guideline. The revisions proposed in supplement B included techniques and guidance for situations where specific procedures had not previously been available, and also improved several previously adopted techniques. As discussed at the modeling conference, proposed changes included:

Complex terrain models (CTDMPLUS and CTSCREEN); Mobile source modeling at signalized intersections; Emissions and dispersion modeling system for airports; Modeling techniques for air pathway analyses;
On-site meteorological program guidance;
General screening techniques;
Method for evaluating models;
Alternate models in appendix B;
Supplementary changes; and
Other topics (including deletion of models no longer used).

For additional information of these issues, please refer to 56 FR 5900–5907, February 13, 1991.

Final Action

Today's action updates the Guideline with changes incorporating supplement B, slightly modified in form since proposal. All significant comments have been considered, and whenever they revealed any new information or suggested any alternative solutions, such were considered in EPA's final action. Also, in keeping with the Office of the Federal Register's current policy on compliance with the Federal Register Act (44 U.S.C. 1502 *et seq.*) and the Administrative Procedures Act (5 U.S.C. 551 *et seq.*), as set forth in 1 CFR part 51, EPA is setting out the Guideline,

[1] In reviewing this preamble, note the distinction between the terms "supplement" and "appendix". Supplements A and B contain the replacement pages to effect Guideline revisions; appendix A to the Guideline is the repository for preferred models, while appendix B is the repository for alternate models justified for use on a case-by-case basis.

[2] On February 21, 1991 the Guideline, as modified by supplement A, was incorporated into the hazardous waste boiler and industrial furnace rules at 40 CFR part 266, subpart H (56 FR 7208). The Guideline was subsequently published as appendix X to part 266 (56 FR 32796); this marked the first time the Guideline had been published for inclusion in the Code of Federal Regulations.

[3] On November 15, 1990, the Clean Air Act Amendments of 1990, Pub. L. 101–549, were enacted. As amended, the Clean Air Act provides continued authority for the air quality modeling conferences and associated revisions to the Guideline.

revised by supplements A and B, as appendix W to 40 CFR part 51. In a complementary action, EPA is hereby removing appendix X to 40 CFR part 266, and changing references to the Guideline in that part to 40 CFR part 51, appendix W. EPA is also updating a reference in § 260.11(a).

As proposed, EPA is adopting CTDMPLUS as a refined technique to be included in appendix A of the Guideline. However, requirements regarding measurement height for collection of meteorological data to run CTDMPLUS are being relaxed from those originally proposed: the maximum height is 100 meters, provided that remote sensing data (e.g., SODAR) up to representative plume height are available on a routine hourly basis. CTSCREEN is being adopted as an acceptable screening technique. The previously used screening model, RTDM, may continue to be used, but the hierarchy in terms of degree of conservatism for complex terrain screening models has been eliminated.

As proposed, a new model, CAL3QHC, is included in the Guideline for estimating carbon monoxide concentrations at signalized intersections. Use of CALINE4 and TEXIN2 may continue in areas where their application has already been established at the time supplement B is promulgated. In response to public comments, the "Guideline for Modeling Carbon Monoxide from Roadway Intersections" has been modified and expanded.

As proposed, EDMS (*E*missions and *D*ispersion *M*odeling *S*ystem) is being included in appendix A of the Guideline for assessing air pollutant concentrations at civilian airports and military bases.

As proposed, DEGADIS (*DEN*se *GA*s *DIS*persion Model) is being included in appendix B of the Guideline. The ISC2 (*I*ndustrial *S*ource *C*omplex) model is not being generally recommended for all air pathway analyses, as originally proposed; it is now being recommended for some specific regulatory programs.

The proposed Solar Radiation/Delta-T (SRDT) method for determining atmospheric stability class is being withdrawn from supplement B (see explanation under "Discussion of Public Comments and Issues").

As proposed, EPA has identified general screening techniques, namely SCREEN and VISCREEN, for preliminary estimates of air quality impact. Minor code changes have been made to SCREEN (renamed "SCREEN2") to ensure reasonable comparability with ISC2 (especially for downwash calculations). To better support VISCREEN, EPA is working with the National Park Service to improve information on background visual ranges and encourage research development of a regional haze model.

As proposed, EPA is including the "Protocol for Determining the Best Performing Model" as the basis for justifying use of an alternative (appendix B) model for a site-specific application.

As proposed, Shoreline Dispersion Model (sea/lake breeze fumigation) and WYNDvalley (valley stagnation) are being included in appendix B of the Guideline. These models, along with MESOPUFF II (long range transport) and PLUVUE II (visibility), which are already in appendix B, are identified as available for application in the unique circumstances to which they apply on a case-by-case basis.

EPA is making several supplementary changes to the Guideline. As proposed, ERTAQ and MPSDM have been deleted from appendix B of the Guideline. EPA has also clarified and updated portions of the Guideline to make it consistent with current regulatory programs that had been established through other Agency activities. As proposed, OCD (*O*ffshore and *C*oastal *D*ispersion Model) in appendix A of the Guideline is being updated. Also as proposed, EKMA and UAM (*U*rban *A*irshed *M*odel), which is also in appendix A, are being updated to include the CB-IV chemical mechanism and guidance.

Finally, supplement B clarifies the appropriate input data for various compliance demonstrations, including that allowable emissions are to be used in PSD NAAQS analyses. Moreover, the Guideline is being codified in the Code of Federal Regulations for projections associated with AQMA analyses (§ 51.46), SIP attainment demonstrations (§ 51.112), analysis of lead concentrations (§ 51.117), regional classification for episode planning (§ 51.150), and preconstruction review of new and modified sources (§ 51.160). As proposed, EPA is not including in the Guideline either a screening technique for point sources of O_3 precursors or recommendations on the use of regional scale models.

Discussion of Public Comments and Issues

All comments presented at the fifth modeling conference and/or submitted to Docket No. A–88–04 are filed in Docket Category IV–D. Also, a verbatim transcript of the conference proceedings is available as Docket Item IV–F–1. EPA has summarized these comments, developed detailed responses, and drawn conclusions on appropriate actions for this Notice of Final Rulemaking in the document "Summary of Public Comments and EPA Responses on the Fifth Conference on Air Quality Modeling: March 1991" (Docket Item V–C–1). In this document, all significant comments have been considered and discussed. Whenever the comments revealed any new information or suggested any alternative solutions, such were considered in EPA's final action.

Major issues raised by the commenters, along with EPA responses, are summarized below. Guidance and editorial changes associated with the resolution of these issues are adopted in the appropriate sections of the Guideline and are promulgated as supplement B (1993) to the "Guideline on Air Quality Models (Revised)" (1986) (Docket Item V–B–1). See the **ADDRESSES** Section of this Notice (above) for general availability.

Although a more detailed summary of the comments and EPA's responses are contained in the aforementioned response-to-comments document (Docket Item V–C–1), the remainder of this preamble section overviews the primary issues encountered by the Agency during the public comment period. This overview also serves to explain the changes to the Guideline from today's action, and the main technical and policy concerns addressed by the Agency. In our view, all of the changes being made reasonably implement the mandates of the Clean Air Act, and are in fact beneficial to both EPA and the regulated community. While modeling by its nature involves approximation based on scientific methodology, and entails utilization of advanced technology as it evolves, EPA believes these changes respond to recent advances in the area so that the Guideline continues to be comprised of the best and most proven of the available models and analytical techniques, as well as reflect reasonable policy choices.

A. Complex Terrain Models

1. Refined Model: CTDMPLUS (Complex Terrain Model PLus Algorithms for Unstable Situations)

There was general support for the proposal to adopt CTDMPLUS as a refined complex terrain model. However, there was a wide variety of comments on various aspects of the model, e.g., evaluation of CTDMPLUS performance, the need for meteorological data collection using a 150 meter tower, concerns with several of the model's preprocessors, averaging times for pollutant concentration

estimates, PC (personal computer) execution time, and the definition of "complex terrain".

EPA does not agree with those comments suggesting that CTDMPLUS has been inadequately evaluated or tested. Indeed, CTDMPLUS is one of the most extensively analyzed and reviewed models ever considered. It is clearly superior in terms of accuracy and utility to other complex terrain models. The Agency does not believe that further evaluation is needed in order to include CTDMPLUS into appendix A of the Guideline.

In so doing, EPA recognizes that data requirements may prove problematical in some circumstances due to the comprehensive nature of the information demanded by the model. Although it would be imprudent to reduce multi-level data requirements for specific parameters as that would significantly compromise the model's accuracy, requirements on measurement location have been relaxed to reflect practical reality. For instance, the maximum height required for tower measurements is 100m, provided that remote sensing data (e.g., SODAR) up to representative plume height are available on a routine hourly basis; this makes the tower height requirement consistent with that already established for RTDM, as a screening technique, in the Guideline. As to those issues related to users learning and applying various preprocessors for CTDMPLUS, they can only be resolved with experience gained through wide application, and EPA encourages consultation with the EPA Regional Offices to discuss appropriate resolution. In addition to seeking assistance from the Regional Offices, users should watch for clarifications to the User's Guide as they are released via SCRAM BBS (Support Center for Regulatory Air Models Bulletin Board System).

For technical and policy reasons, EPA has decided not to make any changes to the handling of averaging times, computer system efficiency, terrain processing modules, or the definition of "complex terrain", although appropriate clarifications have been made to the Guideline to explain limitations and to urge users to confer with the EPA Regional Offices if problems are encountered.

2. Complex Terrain Screening Techniques: CTSCREEN

With regard to CTSCREEN, there was wide support for the proposed adoption of the model as a screening technique. Comments generally related to tabular values for CTSCREEN's operating parameters and the need for adequate technical guidance. Minor typographical errors regarding various model parameters have been corrected. Efforts to ensure the availability of consultation for operating the model will continue through the Regional Offices.

There was also general support for continuing RTDM as an acceptable screening technique, as EPA had proposed. The comments on elimination of a hierarchy in terms of degree of conservatism for complex terrain screening models were somewhat more mixed; the arguments for some structure were ambivalent. However, since all the screening models are conservative, the need for a hierarchy is not clear. Thus, as proposed, the hierarchy of screening models has been eliminated.

3. Intermediate Terrain

There were many comments concerning EPA's proposed clarification of acceptable modeling approaches for receptors in intermediate terrain, i.e., between stack top and plume height. The problems identified by the commenters occur where simplistic complex terrain screening techniques are used. In such circumstances, a more detailed analysis involving comparison of estimates between flat terrain and complex terrain models is necessary.

Given the focus of the comments, it is clear that there is no issue when the newer complex terrain models, i.e., CTSCREEN and CTDMPLUS, are used since these models apply to all terrain above stack height. Recognizing the commenters' concern that the proposed procedure was burdensome, overly complex, lacked formal validation and essentially represented a new technique, EPA is not recommending the approach generally at this time; however, EPA will consider accepting the use of the technique on a case-by-case basis from those who choose to implement the technique.

B. Mobile Source Modeling at Signalized Intersections

1. CAL3QHC

This model is used for estimating carbon monoxide concentrations at signalized intersections. Public comments contend that the Illinois intersection model evaluation study, on which the proposed adoption of CAL3QHC in supplement B was based, was flawed. The comments also contend that the selection of the supplement B intersection model should not be made until further intersection model evaluation is completed, utilizing the more recent New York City data base.

In response to these comments, EPA reevaluated the eight intersection models evaluated with the Illinois data base with the New York City data base. Using the MOBILE4 emissions model, the models were initially evaluated at all six intersection sites in New York City where data were collected. The MOBILE4.1 emissions model, an update to MOBILE4, was then released. The five models performing best using MOBILE4 were then evaluated using MOBILE4.1 at the three intersection sites in New York City with the highest quality data. A statistical scoring scheme was developed to determine the best performing models. The evaluation results showed CAL3QHC, TEXIN2, and CALINE4 to be the best performing models, with none of the three being statistically superior in performance to the others.

EPA points out, however, that TEXIN2 and CALINE4 contain the outdated (mid-1970s) modal emission factors. Since CAL3QHC performed as well as TEXIN2 and CALINE4 and does not contain the obsolete modal emission factors, it is being selected as the recommended intersection model for inclusion in supplement B, as proposed. However, since CALINE4 and TEXIN2 performed as well as CAL3QHC, the use of these models is being allowed for applications where their use has already been established at the time supplement B is promulgated.

2. "Guideline for Modeling CO From Roadway Intersections" (Draft)

Relatively minor public comments were received on receptor placement, ranking criteria for intersections, ambient temperature, persistence factor, hot/cold starts, background levels and wind direction. In response, the "Guideline for Modeling Carbon Monoxide from Roadway Intersections" has been modified, as appropriate, to reflect the commenters' concerns and recommendations.

C. Emissions and Dispersion Modeling System (EDMS)

Since no negative comments were received, EDMS has been identified, as proposed, in the Guideline as a recommended model in appendix A for assessing air pollutant concentrations at civilian airports and military air bases.

D. Modeling Techniques for Air Pathway Analyses

Commenters addressed a variety of topics concerning air toxics. These included applicability of Gaussian models to unconventional or intermittent sources, dense gas models, and model accuracy. In some cases, EPA has planned actions that are responsive to the commenters' concerns. In others,

due to limitations of available data bases or alternative modeling techniques on which to base a different approach, the changes to the Guideline have been implemented as originally proposed. As to these and others, commenters were unable to provide specific improvements.

ISC2 is general enough to apply to a broad category of toxic pollutant releases, which is why the model has been included in appendix A. However, supplement B now indicates that ISC2 has been recommended only for some specific regulatory programs; it is not being generally recommended for all air pathway analyses, as originally proposed.

The algorithms in ISC2 for various source types are continuously being reviewed and improvements released as appropriate. Dense gas models in the public domain have been indicated as available for use, but no one model is being required at this time. Per public comment, SLAB and HGSYSTEM will be proposed for addition to appendix B through a supplemental NPR; DENGADIS (DENse GAs DISpersion Model) is being added to appendix B as proposed in the February 1991 NPR.

Evaluating model accuracy is a continuing concern for EPA. However, there is a lack of suitable data bases to take such evaluations beyond their current extent. Nevertheless, where Gaussian models are applied to conventional source types for risk assessment, there is little basis for concern about overestimates of health risks; these models have consistently demonstrated a tendency to underestimate concentrations for longer averaging times.

E. On-Site Meteorological Program Guidance

Since the close of the public comment period, the evaluation supporting the SRDT method was found to have been based on a flawed implementation of the method (software error) and thus the conclusions of that evaluation are suspect. While public comments were generally supportive of the SRDT method, it unfortunately must be withdrawn from supplement B because of this oversight. Pending results of additional evaluations, the SRDT method may be re-proposed in a future supplemental rulemaking to augment the Guideline. However, as proposed, "On-site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA–450/4–87–013) and a Meteorological Processor for Regulatory Models (MPRM)(EPA–600/3–88–043) are cited as the primary source of supplemental guidance and analysis for collection and use of on-site meteorological data (without reference to the SRDT system).

F. General Screening Techniques

1. SCREEN

EPA proposed to identify "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources" with SCREEN as the recommended screening technique in Guideline Section 4.2. A number of changes to SCREEN were suggested by public commenters. As necessary, a number of these changes have been made, through minor code corrections, to ensure reasonable comparability with ISC2. However, based on careful analyses of other suggested changes (e.g., those involving flares and mixing height), EPA has decided to retain SCREEN largely as proposed so as to keep intact the philosophy of SCREEN as a conservative screening technique. As a result of the minor code corrections, this technique has been renamed "SCREEN2".

2. VISCREEN

EPA proposed to identify "Workbook for Plume Visual Impact Screening and Analysis" with VISCREEN as the recommended screening technique for visibility assessments in Guideline section 7.2.4. Numerous detailed comments were provided on VISCREEN and the associated Workbook. However, after careful review, it is apparent that many of the comments were misdirected, sought a level of detail that is inappropriate for a screening analysis, or requested procedures still being researched. As a result, EPA is not changing its proposal on this point. However, to better support the technique, EPA is working with the National Park Service to provide information on background visual ranges and to encourage research development in regional haze modeling techniques.

G. Method for Evaluating Models

EPA proposed to include the "Protocol for Determining the Best Performing Model" ("Protocol") as an adjunct to "Interim Procedures for Evaluating Air Quality Models" (EPA–450/4–84–023) when a party seeks to justify the use of an alternative model for a site-specific application. Most of the comments offered by the public dealt with the degree of flexibility that EPA will permit in developing case-specific model evaluation protocols. This issue is addressed in the Protocol, which indicates that specific test statistics and performance measures described therein may need to be adapted to coincide with the data bases and objectives established for a particular evaluation study. Therefore, EPA has referenced the Protocol in Guideline Sections 3.2 and 10.1, as proposed.

H. Alternate Models in Appendix B

Unlike appendix A of the Guideline, which is a repository of summaries of refined air quality models that are "preferred" for specific applications, appendix B contains summaries of other refined models that may be considered with a case-specific justification. In the February 1991 NPR, EPA solicited comments on the inclusion of four models in appendix B: SDM (Shoreline Dispersion Model), WYNDvalley, MESOPUFF II, and PLUVUE II.

Public comments concerned the lack of an adequate performance evaluation for MESOPUFF II, although data bases for development and assessment of MESOPUFF II or other long range transport models were not identified. In fact, EPA has evaluated the performance of MESOPUFF II and several other long range transport models using available data bases. Although MESOPUFF II was found to be the best performing model, this evaluation resulted in EPA's decision to not propose the model for listing in appendix A of the Guideline. Furthermore, since public comments identifying concerns with the MESOPUFF II estimates of SO_2 conversion and removal presented no additional justification for changes in the model, the policy of case-by-case application of the model using agreed-upon protocols is continuing.

Regarding other models, no comments specifically related to PLUVUE II were received; comments about the proposed inclusion of SDM and WYNDvalley in appendix B of the Guideline were generally favorable. EPA has added SDM and WYNDvalley to appendix B of the Guideline, as proposed; PLUVUE II is already in appendix B. These three models, along with MESOPUFF II and its application protocol, have been identified, as proposed, as models available for application on a case-by-case basis in the following respective parts of the Guideline: Section 8.2.9, 8.2.10, 7.2.4, and 7.2.6. These models are either unique to the specified application or are at least as accurate as other available models. However, due to limitations of data bases for evaluating the models, no further model development or evaluation is feasible at this time. Nor is more detailed guidance appropriate; case-specific consultation with Regional Offices appears to be the most reasonable approach.

I. Supplementary Changes

1. Regional Office Consultation on VOC/NO_x Point Source Modeling

No negative comments were received on this topic, and the Guideline reflects the changes noted in the NPR.

2. Clarification of Modeling Requirements Applicable to PSD (NO_2)

Commenters expressed a desire for modeling techniques more refined than those proposed to handle annual average concentrations of NO_2 as they relate to PSD compliance demonstrations. However, no practical techniques which deal with the explicit use of UAM (*U*rban *A*irshed *M*odel) or with estimating long-term averages were identified. Therefore, since some procedure is needed to treat NO_2 and long-term averages for PSD, the original proposal, though limited, is being maintained for inclusion in the Guideline.

3. PM–10 Issues

No negative comments were received on the proposal to change references to particulate matter so that "PM–10" replaces "TSP" (Guideline Sections 7.2.2 and 11.2.3). Other Guideline changes suggested by commenters which involve references to receptor models are already addressed in the Guideline in a clear and consistent manner; they require no further changes or additions.

4. Clarification on Emissions Data for PSD NAAQS Analyses

Commenters took exception to the use of allowable emissions in modeling analyses for PSD NAAQS. A variety of alternatives was suggested for changing Table 9–2 as proposed, which ranged from the use of actual emissions to use of techniques for statistically approximating emissions variability. EPA maintains however that, once permitted, sources may operate at their legally allowable levels and that these must be considered in the modeling analyses. Appropriate allowances for modifying emissions to represent annual impacts and to account for background sources have been provided for in Guideline Table 9–1 and the proposed Table 9–2, and have long standing in past practice. EPA is authorized by the Clean Air Act to require the use of allowable emissions. Thus, no change to the proposed guidance is being made.

5. Deletion of ERTAQ and MPSDM From Appendix B

No negative comments were received on the proposal to delete these two models from appendix B as requested by the models' developer. These models have been deleted, as proposed.

6. Updates to OCD

No negative comments were received on this topic. This model has been updated to reflect recent improvements prepared by the Minerals Management Service, as proposed.

7. Updates to UAM and EKMA (OZIPP)

No negative comments were received on the proposal to update EKMA (OZIPP) to include the CB–IV chemical mechanism and guidance. Likewise, with respect to UAM, there were no comments on the use of the CB–IV mechanism; therefore, a version of UAM with that chemical mechanism has been specifically recommended in appendix A of the Guideline. Public comments on the "Guideline for Regulatory Application of the Urban Airshed Model" concerning such topics as data base criteria, grid size, boundary conditions, and UAM performance evaluation have been thoroughly addressed through consultation with the work group that helped in its development. A revised guide on the use of UAM in SIP development has been prepared and released; that guidance has been referenced in the Guideline.

8. Codification of the "Guideline on Air Quality Models"

Several commenters opposed EPA's proposal to codify the Guideline in the Code of Federal Regulations for regulatory purposes in certain programs, in addition to PSD permitting. These commenters claimed that codification would unduly limit flexibility of States and sources to use alternative models, data bases, and procedures for these other SIP applications. As stated in its Introduction, the Guideline describes "air quality modeling techniques that should be applied to State Implementation Plan (SIP) revisions for existing sources and to new source reviews * * *", and this has always been EPA policy. Use of the Guideline represents long-standing EPA policy and codification would not, in fact, limit flexibility of States or industry as to models, data bases or attainment demonstrations for SIPs. The Guideline, by its terms, provides the flexibility sought by these commenters, because it allows the use of models other than those set forth in appendix A whenever it is appropriate to do so. EPA believes that the comprehensive use of the Guideline under the other provisions promotes consistency in model usage and is in accordance with the authority granted by Sections 110(a)(2), 165(e), 172, 173, 301(a)(1) and 320 of the 1977 Clean Air Act Amendments (42 U.S.C 7410(a)(2), 7475(e), 7502(a) & (b), 7503, 7601(a)(1) and 7620, respectively). The codification therefore is being implemented as proposed. In order to better facilitate this action, the Guideline, as revised through supplement B, will now be published as appendix W to 40 CFR part 51.[4]

J. Other Topics

1. A Screening Technique for Point Sources of O_3 Precursors

Based on public support, screening techniques for estimating VOC/NO_x point source emission impacts on O_3 have not been included in the Guideline at this time.

2. Usefulness of Regional Scale Models to Regulatory Programs

No public comments on this topic were received. Therefore, as proposed by EPA, recommendations on the use of regional scale models have not been included in the Guideline at this time.

K. Miscellaneous Comments

In addition to the topics described above, substantial comments were received which were not specifically solicited in the February 1991 NPR. These comments pertained to the following: (1) Industrial Source Complex (ISC2) Model; (2) *F*ugitive *D*ust *M*odel (FDM); and (3) general modeling guidance.

1. Industrial Source Complex Model

A wide range of comments were presented on the adequacy of the computational code in general and more specifically on the downwash, area source and deposition algorithms. In response to some of these comments, it should be noted that EPA has completed a program to improve the structure of the code. This enhanced code makes the model much more usable, but does not change the way concentrations are calculated and does not alter the basic downwash, area source and deposition algorithms. In addition, a preprocessor which addresses building orientation in a way consistent with current guidance will be made available, thus relieving some of the computational burden.

Lack of a cavity algorithm in ISC2 to calculate downwash is also of concern to EPA and is a high research priority, but no immediate solution is available.

[4] In a conforming action, EPA is hereby deleting appendix X to 40 CFR 266, subpart H (Hazardous Waste Burned in Boilers and Industrial Furnaces). EPA is also changing reference to the Guideline in part 266 to 40 CFR part 51, appendix W.

Where there is confusion in the Guideline about downwash calculations, clarifications have been made. Other remarks about the downwash calculations reflected confusion on the part of the commenter(s) or a lack of data on which to base a better algorithm. Thus, no further action to change downwash calculations is planned at this time.

EPA shares the commenters' concerns about potential deficiencies in the area source and deposition algorithms and is evaluating these and alternative schemes. If new algorithms are identified for use, they will be proposed for public review and comment before being implemented for regulatory application. Until such a proposal is prepared, the current algorithms in ISC2 should continue to be used, as appropriate.

2. Fugitive Dust Model

There were several strong comments in favor of adopting FDM in appendix A of the Guideline as the recommended model for sources of fugitive dust as it relates to both PM–10 and airborne toxic materials. Nevertheless, there has been insufficient opportunity for public comment on this model. Thus, the model algorithms will be considered in a supplemental NPR.

3. General Modeling Guidance

Highly varied comments and Agency responses on other topics not addressed in the February 1991 NPR are summarized in Section 12 of the "Summary of Public Comments and EPA Responses on the Fifth Conference on Air Quality Modeling: March 1991" (Docket Item V–C–1). The comments deal with a wide range of topics primarily related to management of EPA's modeling guidance. In most cases, the commenters seem to have misunderstood the way in which such guidance is issued and updated by the Agency, or the commenters have made inappropriate recommendations that are not consistent with long-standing EPA policies. As such, with one exception, no action appears appropriate. That exception has to do with determination of PSD impacts in Class I areas; work is underway on this topic and will be subjected to public review and comment when completed.

Administrative Requirements

A. Executive Order 12291

Under Executive Order (E.O.) 12291, EPA is required to judge whether a regulation is "major" and therefore subject to the requirement of a regulatory impact analysis (RIA). The criteria set forth in section 1 of the Order for this determination are: (1) Likelihood to have an annual effect on the economy of $100 million or more; (2) likelihood to cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local governments, or geographic regions; or (3) likelihood to result in significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

This rule does not change the proposal's conclusions regarding E.O. 12291, specifically that the regulation is not "major" because it would result in none of the adverse effects mentioned above. This rule has been submitted to the Office of Management and Budget (OMB) for review under E.O. 12291, as required, and their written comments and any EPA responses thereto will be available as Docket Item IV–H–1 (see **ADDRESSES**).

B. Paperwork Reduction Act

This final rule does not contain any information collection requirements subject to review by OMB under the Paperwork Reduction Act on 1980, 44 U.S.C. 3501 *et seq.*

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires EPA to consider potential impacts of regulations on small business "entities". Pursuant to the provisions of 5 U.S.C. 605(b), the Administrator hereby certifies that the attached final rule will not have a significant impact on a substantial number of such entities. This rule merely updates existing technical requirements for air quality modeling analyses mandated by various Clean Air Act programs (e.g., prevention of significant deterioration, new source review, SIP revisions) and imposes no new regulatory burdens.

List of Subjects

40 CFR Part 51

Administrative practice and procedure, Air pollution control, Carbon monoxide, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides.

40 CFR Part 52

Air pollution control, Lead, Nitrogen dioxide, Ozone, Sulfur oxides.

40 CFR Parts 260 and 266

Air pollution control, Hazardous waste.

Dated: June 21, 1993.

Carol M. Browner,

Administrator.

Parts 51, 52, 260 and 266, chapter I, title 40 of the Code of Federal Regulations are amended as follows:

PART 51—REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS

1. The authority citation for part 51 is revised to read as follows:

Authority: 42 U.S.C. 7410(a)(2), 7475(e), 7502 (a) and (b), 7503, 7601(a)(1) and 7620.

2. Section 51.46 is amended by revising paragraph (b) and removing paragraph (c) to read as follows:

§ 51.46 AQMA analysis: Projection of air quality concentrations.

* * * * *

(b) Unless alternative techniques are approved under § 51.63, such concentrations shall be projected using techniques consistent with the requirements in § 51.112(a).

§ 51.63 [Amended]

3. In § 51.63, paragraph (a) is amended by removing "51.46,".

4. In § 51.112, paragraph (a) is amended by removing the second sentence and adding paragraphs (a)(1) and (a)(2) to read as follows:

§ 51.112 Demonstration of adequacy.

(a) * * *

(1) The adequacy of a control strategy shall be demonstrated by means of applicable air quality models, data bases, and other requirements specified in the appendix W of this part ("Guideline on Air Quality Models (Revised)" (1986), supplement A (1987) and supplement B (1993)). The Guideline and its supplements (EPA Publication No. 450/2–78–027R) are also for sale from the U.S. Department of Commerce, National Technical Information Service, 5825 Port Royal Road, Springfield, VA 22161.

(2) Where an air quality model specified in appendix W of this part ("Guideline on Air Quality Models (Revised)" (1986), supplement A (1987) and supplement B (1993)) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis for a specific state program. Written approval of the Administrator

must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment under procedures set forth in § 51.102.

* * * * *

§ 51.117 [Amended]

5. In § 51.117, paragraph (c)(1) is amended by adding the phrase ", consistent with requirements contained in § 51.112(a)" immediately after "if desired". Paragraph (c)(2) is amended by adding the phrase ", consistent with requirements contained in § 51.112(a)" immediately after "for demonstration of attainment". Paragraph (c)(3) is amended by adding the phrase ", consistent with requirements contained in § 51.112(a)" immediately after "for the demonstration of attainment".

§ 51.150 [Amended]

6. In § 51.150, paragraph (e) is amended by adding the phrase ", consistent with the requirements contained in § 51.112(a)" immediately after "of this section" in the first sentence, and by removing the second sentence.

7. Section 51.160 is amended by adding paragraphs (f)(1) and (f)(2) to read as follows:

§ 51.160 Legally enforceable procedures.

* * * * *

(f) * * *

(1) All applications of air quality modeling involved in this subpart shall be based on the applicable models, data bases, and other requirements specified in the appendix W of this part ("Guideline on Air Quality Models (Revised)" (1986), supplement A (1987) and supplement B (1993)). The Guideline and its supplements (EPA Publication No. 450/2–78–027R) are also for sale from the U.S. Department of Commerce, National Technical Information Service, 5825 Port Royal Road, Springfield, VA, 22161.

(2) Where an air quality model specified in the appendix W of this part ("Guideline on Air Quality Models (Revised)" (1986), supplement A (1987) and supplement B (1993)) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis for a specific state program. Written approval of the Administrator must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment under procedures set forth in § 51.102.

8. Section 51.166 is amended by revising paragraphs (l)(1) and (l)(2) to read as follows:

§ 51.166 Prevention of significant deterioration of air quality.

* * * * *

(l) * * *

(1) All applications of air quality modeling involved in this subpart shall be based on the applicable models, data bases, and other requirements specified in the appendix W of this part ("Guideline on Air Quality Models (Revised)" (1986), supplement A (1987) and supplement B (1993)). The Guideline and its supplements (EPA Publication No. 450/2–78–027R) are also for sale from the U.S. Department of Commerce, National Technical Information Service, 5825 Port Royal Road, Springfield, VA, 22161.

(2) Where an air quality model specified in the Appendix W of this part ("Guideline on Air Quality Models (Revised)" (1986), supplement A (1987) and supplement B (1993)) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis for a specific state program. Written approval of the Administrator must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment under procedures set forth in § 51.102.

* * * * *

9. Part 51 is amended by adding appendix W to read as follows:

Appendix W to Part 51—Guideline on Air Quality Models (Revised)

[EPA Document Number EPA–450/2–78–027R]

Preface

Industry and control agencies have long expressed a need for consistency in the application of air quality models for regulatory purposes. In the 1977 Clean Air Act, Congress mandated such consistency and encouraged the standardization of model applications. The Guideline on Air Quality Models was first published in April 1978 to satisfy these requirements by specifying models and providing guidance for their use. This guideline provides a common basis for estimating the air quality concentrations used in assessing control strategies and developing emission limits.

The continuing development of new air quality models in response to regulatory requirements and the expanded requirements for models to cover even more complex problems have emphasized the need for periodic review and update of guidance on these techniques. Four primary on-going activities provide direct input to revisions of this modeling guideline. The first is a series of annual EPA workshops conducted for the purpose of ensuring consistency and providing clarification in the application of models. The second activity, directed toward the improvement of modeling procedures, is the cooperative agreement that EPA has with the scientific community represented by the American Meteorological Society. This agreement provides scientific assessment of procedures and proposed techniques and sponsors workshops on key technical issues. The third activity is the solicitation and review of new models from the technical and user community. In the March 27, 1980 **Federal Register**, a procedure was outlined for the submittal to EPA of privately developed models. After extensive evaluation and scientific review, these models, as well as those made available by EPA, are considered for recognition in this guideline. The fourth activity is the extensive on-going research efforts by EPA and others in air quality and meteorological modeling.

Based primarily on these four activities, this document embodies revisions to the "Guideline on Air Quality Models." Although the text has been revised from the 1978 guide, the present content and topics are similar. As necessary, new sections and topics are included. EPA does not make changes to the guidance on a predetermined schedule, but rather on an as needed basis. EPA believes that revisions to this guideline should be timely and responsive to user needs and should involve public participation to the greatest possible extent. All future changes to the guidance will be proposed and finalized in the **Federal Register**. Information on the current status of modeling guidance can always be obtained from EPA's Regional Offices.

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1.0 Introduction

This guideline recommends air quality modeling techniques that should be applied to State Implementation Plan (SIP)[1] revisions for existing sources and to new source reviews,[2] including prevention of significant deterioration (PSD).[3] It is intended for use by EPA Regional Offices in judging the adequacy of modeling analyses performed by EPA, State and local agencies and by industry. The guidance is appropriate for use by other Federal agencies and by State agencies with air quality and land management responsibilities. It serves to identify, for all interested parties, those techniques and data bases EPA considers acceptable. The guide is not intended to be a compendium of modeling techniques. Rather, it should serve as a basis by which air quality managers, supported by sound scientific judgment, have a common measure of acceptable technical analysis.

Due to limitations in the spatial and temporal coverage of air quality measurements, monitoring data normally are not sufficient as the sole basis for demonstrating the adequacy of emission limits for existing sources. Also, the impacts of new sources that do not yet exist can only be determined through modeling. Thus, models, while uniquely filling one program need, have become a primary analytical tool in most air quality assessments. Air quality measurements though can be used in a complementary manner to dispersion models, with due regard for the strengths and weaknesses of both analysis techniques. Measurements are particularly useful in assessing the accuracy of model estimates. The use of air quality measurements alone however could be preferable, as detailed in a later section of this document, when models are found to be unacceptable and monitoring data with sufficient spatial and temporal coverage are available.

It would be advantageous to categorize the various regulatory programs and to apply a designated model to each proposed source needing analysis under a given program. However, the diversity of the nation's topography and climate, and variations in source configurations and operating characteristics dictate against a strict modeling "cookbook." There is no one model capable of properly addressing all conceivable situations even within a broad category such as point sources. Meteorological phenomena associated with threats to air quality standards are rarely amenable to a single mathematical treatment; thus, case-by-case analysis and judgment are frequently required. As modeling efforts become more complex, it is increasingly important that they be directed by highly competent individuals with a broad range of experience and knowledge in air quality meteorology. Further, they should be coordinated closely with specialists in emissions characteristics, air monitoring and data processing. The judgment of experienced meteorologists and analysts is essential.

The model that most accurately estimates concentrations in the area of interest is always sought. However, it is clear from the needs expressed by the States and EPA Regional Offices, by many industries and trade associations, and also by the deliberations of Congress, that consistency in the selection and application of models and data bases should also be sought, even in case-by-case analyses. Consistency ensures that air quality control agencies and the general public have a common basis for estimating pollutant concentrations, assessing control strategies and specifying emission limits. Such consistency is not, however, promoted at the expense of model and data base accuracy. This guide provides a consistent basis for selection of the most accurate models and data bases for use in air quality assessments.

Recommendations are made in this guide concerning air quality models, data bases, requirements for concentration estimates, the use of measured data in lieu of model estimates, and model evaluation procedures. Models are identified for some specific applications. The guidance provided here should be followed in all air quality analyses relative to State Implementation Plans and in analyses required by EPA, State and local agency air programs. The EPA may approve the use of another technique that can be demonstrated to be more appropriate than those recommended in this guide. This is discussed at greater length in Section 3.0. In all cases, the model applied to a given situation should be the one that provides the most accurate representation of atmospheric transport, dispersion, and chemical transformations in the area of interest. However, to ensure consistency, deviations from this guide should be carefully documented and fully supported.

From time to time situations arise requiring clarification of the intent of the guidance on a specific topic. Periodic workshops are held with the EPA Regional Meteorologists to

ensure consistency in modeling guidance and to promote the use of more accurate air quality models and data bases. The workshops serve to provide further explanations of guideline requirements to the Regional Offices and workshop reports are issued with this clarifying information. In addition, findings from on-going research programs, new model submittals, or results from model evaluations and applications are continuously evaluated. Based on this information changes in the guidance may be indicated.

All changes to this guidance must follow rulemaking requirements since the guideline is codified in Appendix W of part 51. EPA will promulgate proposed and final rules in the **Federal Register** to amend this Appendix. Ample opportunity for public comment will also be provided for each proposed change and public hearings scheduled if requested. Final rule changes will also be made available through the National Technical Information Service (NTIS).

A wide range of topics on modeling and data bases are discussed in the remainder of this guideline. Chapter 2 gives an overview of models and their appropriate use. Chapter 3 provides specific guidance on the use of "preferred" air quality models and on the selection of alternative techniques. Chapters 4 through 7 provide recommendations on modeling techniques for application to simple-terrain stationary source problems, complex terrain problems, and mobile source problems. Specific modeling requirements for selected regulatory issues are also addressed. Chapter 8 discusses issues common to many modeling analyses, including acceptable model components. Chapter 9 makes recommendations for data inputs to models including source, meteorological and background air quality data. Chapter 10 covers the uncertainty in model estimates and how that information can be useful to the regulatory decision-maker. The last chapter summarizes how estimates and measurements of air quality are used in assessing source impact and in evaluating control strategies.

Appendix W to 40 CFR part 51 (the "Guideline on Air Quality Models (Revised)") itself contains three appendices: A, B, and C. Thus, when reference is made to "appendix A" in this document, it refers to the appendix A to appendix W to 40 CFR part 51. Appendices B and C are referenced in the same way.

Appendix A contains summaries of refined air quality models that are "preferred" for specific applications; both EPA models and models developed by others are included. Appendix B contains summaries of other refined models that may be considered with a case-specific justification. Appendix C contains a checklist of requirements for an air quality analysis.

2.0 Overview of Model Use

Before attempting to implement the guidance contained in this document, the reader should be aware of certain general information concerning air quality models and their use. Such information is provided in this section.

2.1 Suitability of Models

The extent to which a specific air quality model is suitable for the evaluation of source impact depends upon several factors. These include: (1) The meteorological and topographic complexities of the area; (2) the level of detail and accuracy needed for the analysis; (3) the technical competence of those undertaking such simulation modeling; (4) the resources available; and (5) the detail and accuracy of the data base, i.e., emissions inventory, meteorological data, and air quality data. Appropriate data should be available before any attempt is made to apply a model. A model that requires detailed, precise, input data should not be used when such data are unavailable. However, assuming the data are adequate, the greater the detail with which a model considers the spatial and temporal variations in emissions and meteorological conditions, the greater the ability to evaluate the source impact and to distinguish the effects of various control strategies.

Air quality models have been applied with the most accuracy or the least degree of uncertainty to simulations of long term averages in areas with relatively simple topography. Areas subject to major topographic influences experience meteorological complexities that are extremely difficult to simulate. Although models are available for such circumstances, they are frequently site specific and resource intensive. In the absence of a model capable of simulating such complexities, only a preliminary approximation may be feasible until such time as better models and data bases become available.

Models are highly specialized tools. Competent and experienced personnel are an essential prerequisite to the successful application of simulation models. The need for specialists is critical when the more sophisticated models are used or the area being investigated has complicated meteorological or topographic features. A model applied improperly, or with inappropriately chosen data, can lead to serious misjudgments regarding the source impact or the effectiveness of a control strategy.

The resource demands generated by use of air quality models vary widely depending on the specific application. The resources required depend on the nature of the model and its complexity, the detail of the data base, the difficulty of the application, and the amount and level of expertise required. The costs of manpower and computational facilities may also be important factors in the selection and use of a model for a specific analysis. However, it should be recognized that under some sets of physical circumstances and accuracy requirements, no present model may be appropriate. Thus, consideration of these factors should not lead to selection of an inappropriate model.

2.2 Classes of Models

The air quality modeling procedures discussed in this guide can be categorized into four generic classes: Gaussian, numerical, statistical or empirical, and physical. Within these classes, especially Gaussian and numerical models, a large number of individual "computational algorithms" may exist, each with its own specific applications. While each of the algorithms may have the same generic basis, e.g., Gaussian, it is accepted practice to refer to them individually as models. For example, the CRSTER model and the RAM model are commonly referred to as individual models. In fact, they are both variations of a basic Gaussian model. In many cases the only real difference between models within the different classes is the degree of detail considered in the input or output data.

Gaussian models are the most widely used techniques for estimating the impact of nonreactive pollutants. Numerical models may be more appropriate than Gaussian models for area source urban applications that involve reactive pollutants, but they require much more extensive input data bases and resources and therefore are not as widely applied. Statistical or empirical techniques are frequently employed in situations where incomplete scientific understanding of the physical and chemical processes or lack of the required data bases make the use of a Gaussian or numerical model impractical. Various specific models in these three generic types are discussed in this guideline.

Physical modeling, the fourth generic type, involves the use of wind tunnel or other fluid modeling facilities. This class of modeling is a complex process requiring a high level of technical expertise, as well as access to the necessary facilities. Nevertheless, physical modeling may be useful for complex flow situations, such as building, terrain or stack down-wash conditions, plume impact on elevated terrain, diffusion in an urban environment, or diffusion in complex terrain. It is particularly applicable to such situations for a source or group of sources in a geographic area limited to a few square kilometers. If physical modeling is available and its applicability demonstrated, it may be the best technique. A discussion of physical modeling is beyond the scope of this guide. The EPA publication "Guideline for Fluid Modeling of Atmospheric Diffusion,"[4] provides information on fluid modeling applications and the limitations of that method.

2.3 Levels of Sophistication of Models

In addition to the various classes of models, there are two levels of sophistication. The first level consists of general, relatively simple estimation techniques that provide conservative estimates of the air quality impact of a specific source, or source category. These are screening techniques or screening models. The purpose of such techniques is to eliminate the need of further more detailed modeling for those sources that clearly will not cause or contribute to ambient concentrations in excess of either the National Ambient Air Quality Standards (NAAQS)[5] or the allowable prevention of significant deterioration (PSD) concentration increments.[3] If a screening technique indicates that the concentration contributed by the source exceeds the PSD increment or the increment remaining to just meet the NAAQS, then the second level of more sophisticated models should be applied

The second level consists of those analytical techniques that provide more detailed treatment of physical and chemical atmospheric processes, require more detailed and precise input data, and provide more specialized concentration estimates. As a result they provide a more refined and, at least theoretically, a more accurate estimate of source impact and the effectiveness of control strategies. These are referred to as refined models.

The use of screening techniques followed by a more refined analysis is always desirable, however there are situations where the screening techniques are practically and technically the only viable option for estimating source impact. In such cases, an attempt should be made to acquire or improve the necessary data bases and to develop appropriate analytical techniques.

3.0 Recommended Air Quality Models

This section recommends refined modeling techniques that are preferred for use in regulatory air quality programs. The status of models developed by EPA, as well as those submitted to EPA for review and possible inclusion in this guidance, is discussed. The section also addresses the selection of models for individual cases and provides recommendations for situations where the preferred models are not applicable. Two additional sources of modeling guidance, the Model Clearinghouse[6] and periodic Regional Meteorologists' workshops, are also briefly discussed here.

In all regulatory analyses, especially if other than preferred models are selected for use, early discussions among Regional Office staff, State and local control agencies, industry representatives, and where appropriate, the Federal Land Manager, are invaluable and are encouraged. Agreement on the data base to be used, modeling techniques to be applied and the overall technical approach, prior to the actual analyses, helps avoid misunderstandings concerning the final results and may reduce the later need for additional analyses. The use of an air quality checklist, such as presented in appendix C, and the preparation of a written protocol help to keep misunderstandings at a minimum.

It should not be construed that the preferred models identified here are to be permanently used to the exclusion of all others or that they are the only models available for relating emissions to air quality. The model that most accurately estimates concentrations in the area of interest is always sought. However, designation of specific models is needed to promote consistency in model selection and application.

The 1980 solicitation of new or different models from the technical community[7] and the program whereby these models are evaluated, established a means by which new models are identified, reviewed and made available in the guideline. There is a pressing need for the development of models for a wide range of regulatory applications. Refined models that more realistically simulate the physical and chemical process in the atmosphere and that more reliably estimate pollutant concentrations are required. Thus, the solicitation of models is considered to be continuous.

3.1 Preferred Modeling Techniques

3.1.1 Discussion

EPA has developed approximately 10 models suitable for regulatory application. More than 20 additional models were submitted by private developers for possible inclusion in the guideline. These refined models have all been organized into eight categories of use: rural, urban industrial complex, reactive pollutants, mobile sources, complex terrain, visibility, and long range transport. They are undergoing an intensive evaluation by category. The evaluation exercises[8,9,10] include statistical measures of model performance in comparison with measured air quality data as suggested by the American Meteorological Society[11] and, where possible, peer scientific reviews.[12,13,14]

When a single model is found to perform better than others in a given category, it is recommended for application in that category as a preferred model and listed in Appendix A. If no one model is found to clearly perform better through the evaluation exercise, then the preferred model listed in appendix A is selected on the basis of other factors such as past use, public familiarity, cost or resource requirements, and availability. No further evaluation of a preferred model is required if the source follows EPA recommendations specified for the model in this guideline. The models not specifically recommended for use in a particular category are summarized in appendix B. These models should be compared with measured air quality data when they are used for regulatory applications consistent with recommendations in section 3.2.

The solicitation of new refined models which are based on sounder scientific principles and which more reliably estimate pollutant concentrations is considered by EPA to be continuous. Models that are submitted in accordance with the provisions outlined in the **Federal Register** notice of March 1980 (45 FR 20157)[7] will be evaluated as submitted. These requirements are:

1. The model must be computerized and functioning in a common Fortran language suitable for use on a variety of computer systems.

2. The model must be documented in a user's guide which identifies the mathematics of the model, data requirements and program operating characteristics at a level of detail comparable to that available for currently recommended models. e.g., the Single Source [CRSTER] Model.

3. The model must be accompanied by a complete test data set including input parameters and output results. The test data must be included in the user's guide as well as provided in computer-readable form.

4. The model must be useful to typical users, e.g., State air pollution control agencies, for specific air quality control problems. Such users should be able to operate the computer program(s) from available documentation.

5. The model documentation must include a comparison with air quality data or with other well-established analytical techniques.

6. The developer must be willing to make the model available to users at reasonable cost or make it available for public access through the National Technical Information Service; the model cannot be proprietary.

The evaluation process will include a determination of technical merit, in accordance with the above six items including the practicality of the model for use in ongoing regulatory programs. Each model will also be subjected to a performance evaluation for an appropriate data base and to a peer scientific review. Models for wide use (not just an isolated case!) found to perform better, based on an evaluation for the same data bases used to evaluate models in appendix A, will be proposed for inclusion as preferred models in future guideline revisions.

3.1.2 Recommendations

Appendix A identifies refined models that are preferred for use in regulatory applications. If a model is required for a particular application, the user should select a model from that appendix. These models may be used without a formal demonstration of applicability as long as they are used as indicated in each model summary of appendix A. Further recommendations for the application of these models to specific source problems are found in subsequent sections of this guideline.

If changes are made to a preferred model without affecting the concentration estimates, the preferred status of the model is unchanged. Examples of modifications that do not affect concentrations are those made to enable use of a different computer or those that affect only the format or averaging time of the model results. However, when any changes are made, the Regional Administrator should require a test case example to demonstrate that the concentration estimates are not affected.

A preferred model should be operated with the options listed in appendix A as "Recommendations for Regulatory Use." If other options are exercised, the model is no longer "preferred." Any other modification to a preferred model that would result in a change in the concentration estimates likewise alters its status as a preferred model. Use of the model must then be justified on a case-by-case basis.

3.2 Use of Alternative Models

3.2.1 Discussion Selection of the best techniques for each individual air quality analysis is always encouraged, but the selection should be done in a consistent manner. A simple listing of models in this guide cannot alone achieve that consistency nor can it necessarily provide the best model for all possible situations. An EPA document, "Interim Procedures for Evaluating Air Quality Models",[15,16] has been prepared to assist in developing a consistent approach when justifying the use of other than the preferred modeling techniques recommended in this guide. An alternative to be considered to the performance measures contained in chapter 3 of this document is set forth in another EPA document "Protocol for Determining the Best Performing Model".[17] The procedures in both documents provide a general framework for objective decision-

making on the acceptability of an alternative model for a given regulatory application. The documents contain procedures for conducting both the technical evaluation of the model and the field test or performance evaluation.

This section discusses the use of alternate modeling techniques and defines three situations when alternative models may be used.

3.2.2 Recommendations. Determination of acceptability of a model is a Regional Office responsibility. Where the Regional Administrator finds that an alternative model is more appropriate than a preferred model, that model may be used subject to the recommendations below. This finding will normally result from a determination that (1) a preferred air quality model is not appropriate for the particular application; or (2) a more appropriate model or analytical procedure is available and is applicable.

An alternative model should be evaluated from both a theoretical and a performance perspective before it is selected for use. There are three separate conditions under which such a model will normally be approved for use: (1) If a demonstration can be made that the model produces concentration estimates equivalent to the estimates obtained using a preferred model; (2) if a statistical performance evaluation has been conducted using measured air quality data and the results of that evaluation indicate the alternative model performs better for the application than a comparable model in appendix A; and (3) if there is no preferred model for the specific application but a refined model is needed to satisfy regulatory requirements. Any one of these three separate conditions may warrant use of an alternative model. Some known alternative models that are applicable for selected situations are contained in appendix B. However, inclusion there does not infer any unique status relative to other alternative models that are being or will be developed in the future.

Equivalency is established by demonstrating that the maximum or highest, second highest concentrations are within 2 percent of the estimates obtained from the preferred model. The option to show equivalency is intended as a simple demonstration of acceptability for an alternative model that is so nearly identical (or contains options that can make it identical) to a preferred model that it can be treated for practical purposes as the preferred model. Two percent was selected as the basis for equivalency since it is a rough approximation of the fraction that PSD Class I increments are of the NAAQS for SO_2, i.e., the difference in concentrations that is judged to be significant. However, notwithstanding this demonstration, use of models that are not equivalent may be used when one of the two other conditions identified below are satisfied.

The procedures and techniques for determining the acceptability of a model for an individual case based on superior performance is contained in the document entitled "Interim Procedures for Evaluating Air Quality Models",[15] and should be followed, as appropriate.[a] Preparation and implementation of an evaluation protocol which is acceptable to both control agencies and regulated industry is an important element in such an evaluation.

When no appendix A model is applicable to the modeling problem, an alternative refined model may be used provided that:

1. The model can be demonstrated to be applicable to the problem on a theoretical basis, and

2. The data bases which are necessary to perform the analysis are available and adequate, and

3a. Performance evaluations of the model in similar circumstances have shown that the model is not biased toward underestimates, or

3b. After consultation with the EPA Regional Office, a second model is selected as a baseline or reference point for performance and the interim procedures[15]/ protocol[17] are then used to demonstrate that the proposed model performs better than the reference model.

3.3 Availability of Supplementary Modeling Guidance

The Regional Administrator has the authority to select models that are appropriate for use in a given situation. However, there is a need for assistance and guidance in the selection process so that fairness and consistency in modeling decisions is fostered among the various Regional Offices and the States. To satisfy that need, EPA established the Model Clearinghouse and also holds periodic workshops with headquarters, Regional Office and State modeling representatives.

3.3.1 The Model Clearinghouse

3.3.1.1 *Discussion.* The Model Clearinghouse is the single EPA focal point for review of air quality simulation models proposed for use in specific regulatory applications. Details concerning the Clearinghouse and its operation are found in the document, "Model Clearinghouse: Operational Plan."[6] Three primary functions of the Clearinghouse are:

(1) Review of decisions proposed by EPA Regional Offices on the use of modeling techniques and data bases.

(2) Periodic visits to Regional Offices to gather information pertinent to regulatory model usage.

(3) Preparation of an annual report summarizing activities of the Clearinghouse including specific determinations made during the course of the year.

3.3.1.2 *Recommendations.* The Regional Administrator may request assistance from the Model Clearinghouse after an initial evaluation and decision has been reached concerning the application of a model, analytical technique or data base in a particular regulatory action. The Clearinghouse may also consider and evaluate the use of modeling techniques submitted in support of any regulatory action. Additional responsibilities are: (1) Review proposed action for consistency with agency policy; (2) determine technical adequacy; and (3) make recommendations concerning the technique or data base.

3.3.2 Regional Meteorologists Workshops

3.3.2.1 *Discussion.* EPA conducts an annual in-house workshop for the purpose of mutual discussion and problem resolution among Regional Office modeling specialists, EPA research modeling experts, EPA Headquarters modeling and regulatory staff and representatives from State modeling programs. A summary of the issues resolved at previous workshops was issued in 1981 as "Regional Workshops on Air Quality Modeling: A Summary Report."[17] That report clarified procedures not specifically defined in the 1978 guideline and was issued to ensure the consistent interpretation of model requirements from Region to Region. Similar workshops for the purpose of clarifying guideline procedures or providing detailed instructions for the use of those procedures are anticipated in the future.

3.3.2.2 *Recommendations.* The Regional Office should always be consulted for information and guidance concerning modeling methods and interpretations of modeling guidance, and to ensure that the air quality model user has available the latest most up-to-date policy and procedures.

4.0 Simple-Terrain Stationary Source Models

4.1 Discussion

Simple terrain, as used here, is considered to be an area where terrain features are all lower in elevation than the top of the stack of the source(s) in question. The models recommended in this section are generally used in the air quality impact analysis of stationary sources for most criteria pollutants. The averaging time of the concentration estimates produced by these models ranges from 1 hour to an annual average.

Model evaluation exercises have been conducted to determine the "best, most appropriate point source model" for use in simple terrain.[8,12] However, no one model has been found to be clearly superior. Thus, based on past use, public familiarity, and availability CRSTER remains the recommended model for rural, simple terrain, single point source applications. Similar determinations were made for the other refined models that are identified in the following sections.

4.2 Recommendations

4.2.1 Screening Techniques

Point source screening techniques are an acceptable approach to air quality analyses. One such approach is contained in the EPA document "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources."[18] A computerized version of the screening technique, SCREEN2, is available.[19,20]

All screening procedures should be adjusted to the site and problem at hand.

[a] Another EPA document, "Protocol for Determining the Best Performing Model",[17] contains advanced statistical techniques for determining which model performs better than other competing models. In many cases, this protocol should be considered by users of the "Interim Procedures for Evaluating Air Quality Models" in preference to the material currently in Chapter 3 of that document.

Close attention should be paid to whether the area should be classified urban or rural in accordance with Section 8.2.8. The climatology of the area should be studied to help define the worst-case meteorological conditions. Agreement should be reached between the model user and the reviewing authority on the choice of the screening model for each analysis, and on the input data as well as the ultimate use of the results.

4.2.2 Refined Analytical Techniques

Table 4–1 lists preferred models for selected applications. These preferred models should be used for the sources, land use categories and averaging times indicated in the table. A brief description of each of these models is found in appendix A. Also listed in that appendix are the model input requirements, the standard options that should be selected when running the program and output options.

When modeling for compliance with short term NAAQS and PSD increments is of primary concern, the short term models listed in Table 4-1 may also be used to provide long term concentration estimates. When modeling for sources for which long term standards alone are applicable (e.g., lead), then the long term models should be used.

The conversion from long term to short term concentration averages by any transformation technique is not acceptable in regulatory applications.

TABLE 4–1.—PREFERRED MODELS FOR SELECTED APPLICATIONS IN SIMPLE TERRAIN

	Land Use	Model [1]
Short Term (i.e., 1–24 hours):		
Single Source	Rural	CRSTER
	Urban	RAM
Multiple Source.	Rural	MPTER
	Urban	RAM
Complicated Sources [2].	Rural/Urban	ISCST2
Buoyant Industrial Line Sources.	Rural	BLP
Long Term (i.e., monthly, seasonal or annual):		
Single Source	Rural	CRSTER
	Urban	RAM
Multiple Source.	Rural	MPTER
	Urban	CDM 2.0 or RAM [3]
Complicated Sources [2].	Rural/Urban	ISCLT2

TABLE 4–1.—PREFERRED MODELS FOR SELECTED APPLICATIONS IN SIMPLE TERRAIN—Continued

	Land Use	Model [1]
Buoyant Industrial Line Sources.	Rural	BLP

[1] Several of these models contain options which allow them to be interchanged. For Example, ISCST2 can be substituted for CRSTER and equivalent, if not identical, concentration estimates obtained. Similarly, for a point source application, MPTER with urban option can be substituted for RAM. Where a substitution is convenient to the user and equivalent estimates are assured, it may be made. The models as listed here reflect the applications for which they were originally intended.

[2] Complicated sources are those with special problems such as aerodynamic downwash, particle deposition, volume and area sources, etc.

[3] If only a few sources in an urban area are to be modeled, RAM should be used.

5.0 Model Use in Complex Terrain

5.1 Discussion

For the purpose of this guideline, complex terrain is defined as terrain exceeding the height of the stack being modeled. Complex terrain dispersion models are normally applied to stationary sources of pollutants such as SO_2 and particulates.

A major outcome from the EPA Complex Terrain Model Development project has been the publication of a refined dispersion model (CTDM) suitable for regulatory application to plume impaction assessments in complex terrain.[21] Although CTDM as originally produced was only applicable to those hours characterized as neutral or stable, a computer code for all stability conditions, CTDMPLUS,[19] together with a user's guide,[22] and on-site meteorological and terrain data processors,[23,24] is now available. Moreover, CTSCREEN,[19,25] a version of CTDMPLUS that does not require on-site meteorological data inputs, is also available as a screening technique.

The methods discussed in this section should be considered in two categories: (1) Screening techniques, and (2) the refined dispersion model, CTDMPLUS, discussed below and listed in Appendix A.

Continued improvements in ability to accurately model plume dispersion in complex terrain situations can be expected, e.g., from research on lee side effects due to terrain obstacles. New approaches to improve the ability of models to realistically simulate atmospheric physics, e.g., hybrid models which incorporate an accurate wind field analysis, will ultimately provide more appropriate tools for analyses. Such hybrid modeling techniques are also acceptable for regulatory applications after the appropriate demonstration and evaluation.[15]

5.2 Recommendations

Recommendations in this Section apply primarily to those situations where the impaction of plumes on terrain at elevations equal to or greater than the plume centerline during stable atmospheric conditions are determined to be the problem. If a violation of any NAAQS or the controlling increment is indicated by using any of the preferred screening techniques, then a refined complex terrain model may be used. Phenomena such as fumigation, wind direction shear, lee-side effects, building wake- or terrain-induced downwash, deposition, chemical transformation, variable plume trajectories, and long range transport are not addressed by the recommendations in this section.

Where site-specific data are used for either screening or refined complex terrain models, a data base of at least 1 full-year of meteorological data is preferred. If more data are available, they should be used. Meteorological data used in the analysis should be reviewed for both spatial and temporal representativeness.

Placement of receptors requires very careful attention when modeling in complex terrain. Often the highest concentrations are predicted to occur under very stable conditions, when the plume is near, or impinges on, the terrain. The plume under such conditions may be quite narrow in the vertical, so that even relatively small changes in a receptor's location may substantially affect the predicted concentration. Receptors within about a kilometer of the source may be even more sensitive to location. Thus, a dense array of receptors may be required in some cases. In order to avoid excessively large computer runs due to such a large array of receptors, it is often desirable to model the area twice. The first model run would use a moderate number of receptors carefully located over the area of interest. The second model run would use a more dense array of receptors in areas showing potential for high concentrations, as indicated by the results of the first model run.

When CTSCREEN or CTDMPLUS is used, digitized contour data must be first processed by the CTDM Terrain Processor [23] to provide hill shape parameters in a format suitable for direct input to CTDMPLUS. Then the user supplies receptors either through an interactive program that is part of the model or directly, by using a text editor; using both methods to select receptors will generally be necessary to assure that the maximum concentrations are estimated by either model. In cases where a terrain feature may "appear to the plume" as smaller, multiple hills, it may be necessary to model the terrain both as a single feature and as multiple hills to determine design concentrations.

The user is encouraged to confer with the Regional Office if any unresolvable problems are encountered with any screening or refined analytical procedures, e.g., meteorological data, receptor siting, or terrain contour processing issues.

5.2.1 Screening Techniques

Five preferred screening techniques are currently available to aid in the evaluation of concentrations due to plume impaction during stable conditions: (1) for 24-hour impacts, the Valley Screening Technique [19] as outlined in the Valley Model User's Guide;[26] (2) CTSCREEN,[19] as outlined in the CTSCREEN User's Guide;[25] (3) COMPLEX I;[19] (4) SHORTZ/LONGZ;[19,27] and (5) Rough Terrain Dispersion Model (RTDM)[19,20] in its

prescribed mode described below. As appropriate, any of these screening techniques may be used consistent with the needs, resources, and available data of the user.

The Valley Model, COMPLEX I, SHORTZ/LONGZ, and RTDM should be used only to estimate concentrations at receptors whose elevations are greater than or equal to plume height. For receptors at or below stack height, a simple terrain model should be used (see Chapter 4). Receptors between stack height and plume height present a unique problem since none of the above models were designed to handle receptors in this narrow regime, the definition of which will vary hourly as meteorological conditions vary. CTSCREEN may be used to estimate concentrations under all stability conditions at all receptors located "on terrain" above stack top, but has limited applicability in multi-source situations. As a result, the estimation of concentrations at receptors between stack height and plume height should be considered on a case-by-case basis after consultation with the EPA Regional Office; the most appropriate technique may be a function of the actual source(s) and terrain configuration unique to that application. One technique that will generally be acceptable, but is not necessarily preferred for any specific application, involves applying both a complex terrain model (except for the Valley Model) and a simple terrain model. The Valley Model should not be used for any intermediate terrain receptor. For each receptor between stack height and plume height, an hour-by-hour comparison of the concentration estimates from both models is made. The higher of the two modeled concentrations should be chosen to represent the impact at that receptor for that hour, and then used to compute the concentration for the appropriate averaging time(s). For the simple terrain models, terrain may have to be "chopped off" at stack height, since these models are frequently limited to receptors no greater than stack height.

5.2.1.1 *Valley Screening Technique.* The Valley Screening Technique may be used to determine 24-hour averages. This technique uses the Valley Model with the following worst-case assumptions for rural areas: (1) P-G stability "F"; (2) wind speed of 2.5 m/s; and (3) 6 hours of occurrence. For urban areas the stability should be changed to "P-G stability E."

When using the Valley Screening Technique to obtain 24-hour average concentrations the following apply: (1) Multiple sources should be treated individually and the concentrations for each wind direction summed; (2) only one wind direction should be used (see User's Guide,[26] page 2–15) even if individual runs are made for each source; (3) for buoyant sources, the BID option may be used, and the option to use the 2.6 stable plume rise factor should be selected; (4) if plume impaction is likely on any elevated terrain closer to the source than the distance from the source to the final plume rise, then the transitional (or gradual) plume rise option for stable conditions should be selected.

The standard polar receptor grid found in the Valley Model User's Guide may not be sufficiently dense for all analyses if only one geographical scale factor is used. The user should choose an additional set of receptors at appropriate downwind distances whose elevations are equal to plume height minus 10 meters. Alternatively, the user may exercise the "Valley equivalent" option in COMPLEX I or SCREEN2 and note the comments above on the placement of receptors in complex terrain models.

When using the "Valley equivalent" option in COMPLEX I, set the wind profile exponents (PL) to 0.0, respectively, for all six stability classes.

5.2.1.2 *CTSCREEN.* CTSCREEN may be used to obtain conservative, yet realistic, worst-case estimates for receptors located on terrain above stack height. CTSCREEN accounts for the three-dimensional nature of plume and terrain interaction and requires detailed terrain data representative of the modeling domain. The model description and user's instructions are contained in the user's guide.[25] The terrain data must be digitized in the same manner as for CTDMPLUS and a terrain processor is available.[29] A discussion of the model's performance characteristics is provided in a technical paper.[91] CTSCREEN is designed to execute a fixed matrix of meteorological values for wind speed (u), standard deviation of horizontal and vertical wind speeds (σ_v, σ_w), vertical potential temperature gradient ($d\theta/dz$), friction velocity (u_*), Monin-Obukhov length (L), mixing height (z_i) as a function of terrain height, and wind directions for both neutral/stable conditions and unstable convective conditions. Table 5–1 contains the matrix of meteorological variables that is used for each CTSCREEN analysis. There are 96 combinations, including exceptions, for each wind direction for the neutral/stable case, and 108 combinations for the unstable case. The specification of wind direction, however, is handled internally, based on the source and terrain geometry. The matrix was developed from examination of the range of meteorological variables associated with maximum monitored concentrations from the data bases used to evaluate the performance of CTDMPLUS. Although CTSCREEN is designed to address a single source scenario, there are a number of options that can be selected on a case-by-case basis to address multi-source situations. However, the Regional Office should be consulted, and concurrence obtained, on the protocol for modeling multiple sources with CTSCREEN to ensure that the worst case is identified and assessed. The maximum concentration output from CTSCREEN represents a worst-case 1-hour concentration. Time-scaling factors of 0.7 for 3-hour, 0.15 for 24-hour and 0.03 for annual concentration averages are applied internally by CTSCREEN to the highest 1-hour concentration calculated by the model.

5.2.1.3 *COMPLEX I.* If the area is rural, COMPLEX I may be used to estimate concentrations for all averaging times. COMPLEX I is a modification of the MPTER model that incorporates the plume impaction algorithm of the Valley Model.[19] It is a multiple-source screening technique that accepts hourly meteorological data as input. The output is the same as the normal MPTER output. When using COMPLEX I the following options should be selected: (1) set terrain adjustment IOPT(1) = 1; (2) set buoyancy induced dispersion IOPT (4) = 1; (3) set IOPT (25) = 1; (4) set the terrain adjustment values to 0.5, 0.5, 0.5 0.5, 0.0, 0.0, (respectively for six stability classes); and (5) set Z MIN = 10.

When using the "Valley equivalent" option (only) in COMPLEX I, set the wind profile exponents (PL) to 0.0, respectively, for all six stability classes. For all other regulatory uses of COMPLEX I, set the wind profile exponents to the values used in the simple terrain models, i.e., 0.07, 0.07, 0.10, 0.15, 0.35, and 0.55, respectively, for rural modeling.

Gradual plume rise should be used to estimate concentrations at nearby elevated receptors, if plume impaction is likely on any elevated terrain closer to the source than the distance from the source to the final plume rise (see Section 8.2.5).

5.2.1.4 *SHORTZ/LONGZ.* If the source is located in an urbanized (Section 8.2.8) complex terrain valley, then the suggested screening technique is SHORTZ for short-term averages or LONGZ for long-term averages. SHORTZ and LONGZ may be used as screening techniques in these complex terrain applications without demonstration and evaluation. Application of these models in other than urbanized valley situations will require the same evaluation and demonstration procedures as are required for all Appendix B models.

Both SHORTZ and LONGZ have a number of options. When using these models as screening techniques for urbanized valley applications, the options listed in Table 5–2 should be selected.

5.2.1.5 *RTDM (Screening Mode).* RTDM with the options specified in Table 5–3 may be used as a screening technique in rural complex terrain situations without demonstration and evaluation.

The RTDM screening technique can provide a more refined concentration estimate if on-site wind speed and direction characteristic of plume dilution and transport are used as input to the model. In complex terrain, these winds can seldom be estimated accurately from the standard surface (10m level) measurements. Therefore, in order to increase confidence in model estimates, EPA recommends that wind data input to RTDM should be based on fixed measurements at stack top height. For stacks greater than 100m, the measurement height may be limited to 100m in height relative to stack base. However, for very tall stacks, see guidance in section 9.3.3.2. This recommendation is broadened to include wind data representative of plume transport height where such data are derived from measurements taken with remote sensing devices such as SODAR. The data from both fixed and remote measurements should meet quality assurance and recovery rate requirements. The user should also be aware that RTDM in the screening mode accepts the input of measured wind speeds at only one height. The default values for the wind speed profile exponents shown in Table 5–3 are used in the model to determine the wind

speed at other heights. RTDM uses wind speed at stack top to calculate the plume rise and the critical dividing streamline height, and the wind speed at plume transport level to calculate dilution. RTDM treats wind direction as constant with height.

RTDM makes use of the "critical dividing streamline" concept and thus treats plume interactions with terrain quite differently from other models such as SHORTZ and COMPLEX I. The plume height relative to the critical dividing streamline determines whether the plume impacts the terrain, or is lifted up and over the terrain. The receptor spacing to identify maximum impact concentrations is quite critical depending on the location of the plume in the vertical. Analysis of the expected plume height relative to the height of the critical dividing streamline should be performed for differing meteorological conditions in order to help develop an appropriate array of receptors. Then it is advisable to model the area twice according to the suggestions in section 5.2.

5.2.1.6 *Restrictions.* For screening analyses using the Valley Screening Technique, COMPLEX I or RTDM, a sector greater than 22½° should not be allowed. Full ground reflection should always be used in the Valley Screening Technique and COMPLEX I.

5.2.2 Refined Analytical Techniques

When the results of the screening analysis demonstrate a possible violation of NAAQS or the controlling PSD increments, a more refined analysis may need to be conducted.

The Complex Terrain Dispersion Model PLus Algorithms for Unstable Situations (CTDMPLUS) is a refined air quality model that is preferred for use in all stability conditions for complex terrain applications. CTDMPLUS is a sequential model that requires five input files: (1) General program specifications; (2) a terrain data file; (3) a receptor file; (4) a surface meteorological data file; and (5) a user created meteorological profile data file. Two optional input files consist of hourly emissions parameters and a file containing upper air data from rawinsonde data files, e.g., a National Climatic Data Center TD–6201 file, unless there are no hours categorized as unstable in the record. The model description and user instructions are contained in Volume 1 of the User's Guide.[22] Separate publications[23,24] describe the terrain preprocessor system and the meteorological preprocessor program. In *Part I* of a technical article[92] is a discussion of the model and its preprocessors; the model's performance characteristics are discussed in *Part II* of the same article.[93] The size of the CTDMPLUS executable file on a personal computer is approximately 360K bytes. The model produces hourly average concentrations of stable pollutants, i.e., chemical transformation or decay of species and settling/deposition are not simulated. To obtain concentration averages corresponding to the NAAQS, e.g., 3- or 24-hour, or annual averages, the user must execute a postprocessor program such as CHAVG.[19] CTDMPLUS is applicable to all receptors on terrain elevations above stack top. However, the model contains no algorithms for simulating building downwash or the mixing or recirculation found in cavity zones in the lee of a hill. The path taken by a plume through an array of hills cannot be simulated. CTDMPLUS does not explicitly simulate calm meteorological periods, and for those situations the user should follow the guidance in Section 9.3.4. The user should follow the recommendations in the User's Guide under General Program Specifications for: (1) Selecting mixed layer heights, (2) setting minimum scalar wind speed to 1 m/s, and (3) scaling wind direction with height. Close coordination with the Regional Office is essential to insure a consistent, technically sound application of this model.

The performance of CTDMPLUS is greatly improved by the use of meteorological data from several levels up to plume height. However, due to the vast range of source-plume-hill geometries possible in complex terrain, detailed requirements for meteorological monitoring in support of refined analyses using CTDMPLUS should be determined on a case-by-case basis. The following general guidance should be considered in the development of a meteorological monitoring protocol for regulatory applications of CTDMPLUS and reviewed in detail by the Regional Office before initiating any monitoring. As appropriate, the On-Site Meteorological Program Guidance document[66] should be consulted for specific guidance on siting requirements for meteorological towers, selection and exposure of sensors, etc. As more experience is gained with the model in a variety of circumstances, more specific guidance may be developed.

Site specific meteorological data are critical to dispersion modeling in complex terrain and, consequently, the meteorological requirements are more demanding than for simple terrain. Generally, three different meteorological files (referred to as surface, profile, and rawin files) are needed to run CTDMPLUS in a regulatory mode.

The surface file is created by the meteorological preprocessor (METPRO)[24] based on on-site measurements or estimates of solar and/or net radiation, cloud cover and ceiling, and the mixed layer height. These data are used in METPRO to calculate the various surface layer scaling parameters (roughness length, friction velocity, and Monin-Obukhov length) which are needed to run the model. All of the user inputs required for the surface file are based either on surface observations or on measurements at or below 10m.

The profile data file is prepared by the user with on-site measurements (from at least three levels) of wind speed, wind direction, turbulence, and potential temperature. These measurements should be obtained up to the representative plume height(s) of interest (i.e., the plume height(s) under those conditions important to the determination of the design concentration). The representative plume height(s) of interest should be determined using an appropriate complex terrain screening procedure (e.g., CTSCREEN) and should be documented in the monitoring/modeling protocol. The necessary meteorological measurements should be obtained from an appropriately sited meteorological tower augmented by SODAR if the representative plume height(s) of interest exceed 100m. The meteorological tower need not exceed the lesser of the representative plume height of interest (the highest plume height if there is more than one plume height of interest) or 100m.

Locating towers on nearby terrain to obtain stack height or plume height measurements for use in profiles by CTDMPLUS should be avoided unless it can clearly be demonstrated that such measurements would be representative of conditions affecting the plume.

The rawin file is created by a second meteorological preprocessor (READ62)[24] based on NWS (National Weather Service) upper air data. The rawin file is used in CTDMPLUS to calculate vertical potential temperature gradients for use in estimating plume penetration in unstable conditions. The representativeness of the off-site NWS upper air data should be evaluated on a case-by-case basis.

In the absence of an appropriate refined model, screening results may need to be used to determine air quality impact and/or emission limits.

TABLE 5–1a.—NEUTRAL/STABLE METEOROLOGICAL MATRIX FOR CTSCREEN

Variable	Specific Values				
U (m/s)	1.0	2.0	3.0	4.0	5.0
σ_v (m/s)	0.3	0.75	.....	.....	.....
σ_w (m/s)	0.08	0.15	0.30	0.75	.....
$\Delta\Theta/\Delta z$ (K/m)	0.01	0.02	0.035	.....	.....
WD (Wind direction optimized internally for each meteorological combination)					

Exceptions:
(1) If U ≤ 2 m/s and σ_v ≤ 0.3 m/s, then include σ_w = 0.04 m/s.
(2) If σ_w = 0.75 m/s and U ≥ 3.0 m/s, then $\Delta\Theta/\Delta z$ is limited to ≤ 0.01 K/m.

(3) If $U \geq 4$ m/s, then $\sigma_w \geq 0.15$ m/s.
(4) $\sigma_w \leq \sigma_v$.

TABLE 5–1b.—UNSTABLE/CONVECTIVE METEOROLOGICAL MATRIX FOR CTSCREEN

Variable	Specific Values				
U (m/s)	1.0	2.0	3.0	4.0	5.0
u_* (m/s)	0.1	0.3	0.5	.....	.....
L (m)	−10	−50	−90	.....	.....
$\Delta\theta/\Delta z$ (K/m) 0.030 (potential temperature gradient above z_i)					
z_i (m)	0.5h	1.0h	1.5h	.....	.....

Where h = terrain height.

TABLE 5–2.—PREFERRED OPTIONS FOR THE SHORTZ/LONGZ COMPUTER CODES WHEN USED IN A SCREENING MODE

Option	Selection
I Switch 9	If using NWS data, set = 0. If using site-specific data, check with the Regional Office.
I Switch 17	Set = 1 (urban option).
GAMMA 1	Use default values (0.6 entrainment coefficient).
GAMMA 2	Always default to "stable".
XRY	Set = 0 (50m rectilinear expansion distance).
NS, VS, FRQ (SHORTZ)	Do not use (applicable only in flat terrain.)
(particle size, etc.)	NUS, VS, FRQ (LONGZ)
ALPHA	Select 0.9.
SIGEPU	(Use Cramer curves (default); if site-specific turbulence data are available, see Regional Office for advice (dispersion parameters) SIGAPU
P (wind profile)	Select default values given in Table 2–2 of User's Instructions; if site-specific data are available, see Regional Office for advice.

TABLE 5–3.—PREFERRED OPTIONS FOR THE RTDM COMPUTER CODE WHEN USED IN A SCREENING MODE

Parameter	Variable	Value	Remarks
PR001–003	SCALE		Scale factors assuming horizontal distance is in kilometers, vertical distance is in feet, and wind speed is in meters per second.
PR004	ZWIND1	Wind measurement height	See Section 5.2.1.4.
	ZWIND2	Not used	Height of second anemometer.
	IDILUT	1	Dilution wind speed scaled to plume height.
	ZA	0 (default)	Anemometer-terrain height above stack base.
PR005	EXPON	0.09, 0.11, 0.12, 0.14, 0.2, 0.3 (default).	Wind profile exponents.
PR006	ICOEF	3 (default)	Briggs Rural/ASME (1979) dispersion parameters.
PR009	IPPP	0 (default)	Partial plume penetration; not used.
PR010	IBUOY	1 (default)	Buoyancy-enhanced dispersion is used.
	ALPHA	3.162 (default)	Buoyancy-enhanced dispersion coefficient.
PR011	IDMX	1 (default)	Unlimited mixing height for stable conditions.
PR012	ITRANS	1 (default)	Transitional plume rise is used.
PR013	TERCOR	6°0.5 (default)	Plume patch correction factors.
PR014	RVPTG	0.02, 0.035 (default)	Vertical potential temperature gradient values for stabilities E and F.
PR015	ITIPD	1	Stack-tip downwash is used.
PR020	ISHEAR	0 (default)	Wind shear; not used.
PR022	IREFL	1 (default)	Partial surface reflection is used.
PR023	IHORIZ	2 (default)	Sector averaging.
	SECTOR	6°22.5 (default)	Using 22.5° sectors.
PR016 to 019; 021; and 024.	IY, IZ, IRVPTG, IHVPTG; IEPS; IEMIS	0	Hourly values of turbulence, vertical potential temperature gradient, wind speed profile exponents, and stack emissions are not used.

6.0 Models for Ozone, Carbon Monoxide and Nitrogen Dioxide

6.1 Discussion

Models discussed in this section are applicable to pollutants often associated with mobile sources, e.g., ozone (O_3), carbon monoxide (CO) and nitrogen dioxide (NO_2). Where stationary sources of CO and NO_2 are of concern, the reader is referred to sections 4 and 5.

A control agency with jurisdiction over areas with significant ozone problems and which has sufficient resources and data to use a photochemical dispersion model is encouraged to do so. Experience with and evaluations of the Urban Airshed Model show it to be an acceptable, refined approach, and better data bases are becoming available that support the more sophisticated analytical procedures. However, empirical

models (e.g., EKMA) fill the gap between more sophisticated photochemical dispersion models and proportional (rollback) modeling techniques and may be the only applicable procedure if the available data bases are insufficient for refined dispersion modeling.

Models for assessing the impact of carbon monoxide emissions are needed for a number of different purposes, e.g., to evaluate the effects of point sources, congested intersections and highways, as well as the cumulative effect on ambient CO concentrations of all sources of CO in an urban area.[94,95]

Nitrogen oxides are reactive and also an important contribution to the photochemical ozone problem. They are usually of most concern in areas of high ozone concentrations. Unless suitable photochemical dispersion models are used, assumptions regarding the conversion of NO to NO_2 are required when modeling. Site-specific conversion factors may be developed. If site-specific conversion factors are not available or photochemical models are not used, NO_2 modeling should be considered only a screening procedure.

6.2 Recommendations

6.2.1 Models for Ozone

The Urban Airshed Model (UAM)[19,28] is recommended for photochemical or reactive pollutant modeling applications involving entire urban areas. To ensure proper execution of this numerical model, users must satisfy the extensive input data requirements for the model as listed in appendix A and the users guide. Users are also referred to the "Guideline for Regulatory Application of the Urban Airshed Model"[29] for additional data requirements and procedures for operating this model.

The empirical model, City-specific EKMA,[19, 30-33] has limited applicability for urban ozone analyses. Model users should consult the appropriate Regional Office on a case-by-case basis concerning acceptability of this modeling technique.

Appendix B contains some additional models that may be applied on a case-by-case basis for photochemical or reactive pollutant modeling. Other photochemical models, including multi-layered trajectory models, that are available may be used if shown to be appropriate. Most photochemical dispersion models require emission data on individual hydrocarbon species and may require three dimensional meteorological information on an hourly basis. Reasonably sophisticated computer facilities are also often required. Because the input data are not universally available and studies to collect such data are very resource intensive, there are only limited evaluations of those models.

For those cases which involve estimating the impact on ozone concentrations due to stationary sources of VOC and NO_x, whether for permitting or other regulatory cases, the model user should consult the appropriate Regional Office on the acceptability of the modeling technique.

Proportional (rollback/forward) modeling is not an acceptable procedure for evaluating ozone control strategies.

6.2.2 Models for Carbon Monoxide

For analyzing CO impacts at roadway intersections, users should follow the procedures in the "Guideline for Modeling Carbon Monoxide from Roadway Intersections".[34] The recommended model for such analyses is CAL3QHC.[35] This model combines CALINE3 (already in Appendix A) with a traffic model to calculate delays and queues that occur at signalized intersections. In areas where the use of either TEXIN2 or CALINE4 has previously been established, its use may continue. The capability exists for these intersection models to be used in either a screening or refined mode. The screening approach is described in reference 34; a refined approach may be considered on a case-by-case basis. The latest version of the MOBILE (mobile source emission factor) model should be used for emissions input to intersection models.

For analyses of highways characterized by uninterrupted traffic flows, CALINE3 is recommended, with emissions input from the latest version of the MOBILE model.

The recommended model for urban areawide CO analyses is RAM or Urban Airshed Model (UAM); see appendix A. Information on SIP development and requirements for using these models can be found in references 34, 96, 97 and 98.

Where point sources of CO are of concern, they should be treated using the screening and refined techniques described in Section 4 or 5 of the Guideline.

6.2.3 Models for Nitrogen Dioxide (Annual Average)

A three-tiered screening approach is recommended to obtain annual average estimates of NO_2 from point sources for New Source Review analysis, including PSD, and for SIP planning purposes:

a. Initial screen: Use an appropriate Gaussian model from appendix A to estimate the maximum annual average concentration and assume a total conversion of NO to NO_2. If the concentration exceeds the NAAQS and/or PSD increments for NO_2, proceed to the 2nd level screen.

b. 2nd level screen: Apply the Ozone Limiting Method[36] to the annual NO_x estimate obtained in (a) above using a representative average annual ozone concentration. If the result is still greater than the NAAQS, and/or PSD increments, the more refined Ozone Limiting Method in the 3rd level screen should be applied.

c. 3rd level screen: Apply the Ozone Limiting Method separately for each hour of the year or multi-year period. Use representative hourly NO_2 background and ozone levels in the calculations.

In urban areas, a proportional model may be used as a preliminary assessment to evaluate control strategies to meet the NAAQS for multiple minor sources, i.e., minor point, area and mobile sources of NO_x; concentrations resulting from major point sources should be estimated separately as discussed above, then added to the impact of the minor sources. An acceptable screening technique for urban complexes is to assume that all NO_x is emitted in the form of NO_2 and to use a model from appendix A for nonreactive pollutants to estimate NO_2 concentrations. A more accurate estimate can be obtained by (1) calculating the annual average concentrations of NO_x with an urban model, and (2) converting these estimates to NO_2 concentrations based on a spatially averaged NO_2/NO_x annual ratio determined from an existing air quality monitoring network.

To demonstrate compliance with NO_2 PSD increments in urban areas, emissions from major and minor sources should be included in the modeling analysis. Point and area source emissions should be modeled as discussed above. If mobile source emissions do not contribute to localized areas of high ambient NO_2 concentrations, they should be modeled as area sources. When modeled as area sources, mobile source emissions should be assumed uniform over the entire highway link and allocated to each area source grid square based on the portion of highway link within each grid square. If localized areas of high concentrations are likely, then mobile sources should be modeled as line sources with the preferred model ISCLT2.

In situations where there are sufficient hydrocarbons available to significantly enhance the rate of NO to NO_2 conversion, the assumptions implicit in the Ozone Limiting Procedure may not be appropriate More refined techniques should be considered on a case-by-case basis and agreement with the reviewing authority should be obtained. Such techniques should consider individual quantities of NO and NO_2 emissions, atmospheric transport and dispersion, and atmospheric transformation of NO to NO_2. Where it is available site-specific data on the conversion of NO to NO_2 may be used. Photochemical dispersion models, if used for other pollutants in the area, may also be applied to the NO_x problem.

7.0 Other Model Requirements

7.1 Discussion

This section covers those cases where specific techniques have been developed for special regulatory programs. Most of the programs have, or will have when fully developed, separate guidance documents that cover the program and a discussion of the tools that are needed. The following paragraphs reference those guidance documents, when they are available. No attempt has been made to provide a comprehensive discussion of each topic since the reference documents were designed to do that. This section will undergo periodic revision as new programs are added and new techniques are developed.

Other Federal agencies have also developed specific modeling approaches for their own regulatory or other requirements. An example of this is the three-volume manual issued by the U.S. Department of Housing and Urban Development, "Air Quality Considerations in Residential Planning."[37] Although such regulatory requirements and manuals may have come about because of EPA rules or standards, the implementation of such regulations and the use of the modeling techniques is under the jurisdiction of the agency issuing the manual or directive.

The need to estimate impacts at distances greater than 50km (the nominal distance to

which EPA considers most Gaussian models applicable) is an important one especially when considering the effects from secondary pollutants. Unfortunately, models submitted to EPA have not as yet undergone sufficient field evaluation to be recommended for general use. Existing data bases from field studies at mesoscale and long range transport distances are limited in detail. This limitation is a result of the expense to perform the field studies required to verify and improve mesoscale and long range transport models. Particularly important and sparse are meteorological data adequate for generating three dimensional wind fields. Application of models to complicated terrain compounds the difficulty. EPA has completed limited evaluation of several long range transport (LRT) models against two sets of field data. The evaluation results are discussed in the document, "Evaluation of Short-Term Long-Range Transport Models."[99,100] For the time being, long range and mesoscale transport models must be evaluated for regulatory use on a case-by-case basis.

There are several regulatory programs for which air pathway analysis procedures and modeling techniques have been developed. For continuous emission releases, ISC2 forms the basis of many analytical techniques. EPA is continuing to evaluate the performance of a number of proprietary and public domain models for intermittent and non-stack emission releases. Until EPA completes its evaluation, it is premature to recommend specific models for air pathway analyses of intermittent and non-stack releases in this guideline.

Regional scale models are used by EPA to develop and evaluate national policy and assist State and local control agencies. Two such models are the Regional Oxidant Model (ROM)[101,102,103] and the Regional Acid Deposition Model (RADM).[104] Due to the level of resources required to apply these models, it is not envisioned that regional scale models will be used directly in most model applications.

7.2 Recommendations

7.2.1 Fugitive Dust/Fugitive Emissions

Fugitive dust usually refers to the dust put into the atmosphere by the wind blowing over plowed fields, dirt roads or desert or sandy areas with little or no vegetation. Reentrained dust is that which is put into the air by reason of vehicles driving over dirt roads (or dirty roads) and dusty areas. Such sources can be characterized as line, area or volume sources. Emission rates may be based on site-specific data or values from the general literature.

Fugitive emissions are usually defined as emissions that come from an industrial source complex. They include the emissions resulting from the industrial process that are not captured and vented through a stack but may be released from various locations within the complex. Where such fugitive emissions can be properly specified, the ISC model, with consideration of gravitational settling and dry deposition, is the recommended model. In some unique cases a model developed specifically for the situation may be needed.

Due to the difficult nature of characterizing and modeling fugitive dust and fugitive emissions, it is recommended that the proposed procedure be cleared by the appropriate Regional Office for each specific situation before the modeling exercise is begun.

7.2.2 Particulate Matter

The new particulate matter NAAQS, promulgated on July 1, 1987 (52 FR 24634), includes only particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM–10). EPA has also proposed regulations for PSD increments measured as PM–10 in a notice published on October 5, 1989 (54 FR 41218).

Screening techniques like those identified in section 4 are also applicable to PM–10 and to large particles. It is recommended that subjectively determined values for "half-life" or pollutant decay not be used as a surrogate for particle removal. Conservative assumptions which do not allow removal or transformation are suggested for screening. Proportional models (rollback/forward) may not be applied for screening analysis, unless such techniques are used in conjunction with receptor modeling.

Refined models such as those in Section 4 are recommended for PM–10 and large particles. However, where possible, particle size, gas-to-particle formation, and their effect on ambient concentrations may be considered. For urban-wide refined analyses CDM 2.0 or RAM should be used. CRSTER and MPTER are recommended for point sources of small particles. For source-specific analyses of complicated sources, the ISC2 model is preferred. No model recommended for general use at this time accounts for secondary particulate formation or other transformations in a manner suitable for SIP control strategy demonstrations. Where possible, the use of receptor models[38,39,105,106,107] in conjunction with dispersion models is encouraged to more precisely characterize the emissions inventory and to validate source specific impacts calculated by the dispersion model. A SIP development guideline,[108] model reconciliation guidance,[108] and an example model application[109] are available to assist in PM–10 analyses and control strategy development.

Under certain conditions, recommended dispersion models are not available or applicable. In such circumstances, the modeling approach should be approved by the appropriate Regional Office on a case-by-case basis. For example, where there is no recommended air quality model and area sources are a predominant component of PM–10, an attainment demonstration may be based on rollback of the apportionment derived from two reconciled receptor models, if the strategy provides a conservative demonstration of attainment. At this time, analyses involving model calculations for distances beyond 50km and under stagnation conditions should also be justified on a case-by-case basis (see Sections 7.2.6 and 8.2.10).

As an aid to assessing the impact on ambient air quality of particulate matter generated from prescribed burning activities, reference 110 is available.

7.2.3 Lead

The air quality analyses required for lead implementation plans are given in §§ 51.83, 51.84 and 51.85 of 40 CFR part 51. Sections 51.83 and 51.85 require the use of a modified rollback model as a minimum to demonstrate attainment of the lead air quality standard but the use of a dispersion model is the preferred approach. Section 51.83 requires the analysis of an entire urban area if the measured lead concentration in the urbanized area exceeds a quarterly (three month) average of 4.0 $\mu g/m^3$. Section 51.84 requires the use of a dispersion model to demonstrate attainment of the lead air quality standard around specified lead point sources. For other areas reporting a violation of the lead standard, § 51.85 requires an analysis of the area in the vicinity of the monitor reporting the violation. The NAAQS for lead is a quarterly (three month) average, thus requiring the use of modeling techniques that can provide long-term concentration estimates.

The SIP should contain an air quality analysis to determine the maximum quarterly lead concentration resulting from major lead point sources, such as smelters, gasoline additive plants, etc. For these applications the ISC model is preferred, since the model can account for deposition of particles and the impact of fugitive emissions. If the source is located in complicated terrain or is subject to unusual climatic conditions, a case-specific review by the appropriate Regional Office may be required.

In modeling the effect of traditional line sources (such as a specific roadway or highway) on lead air quality, dispersion models applied for other pollutants can be used. Dispersion models such as CALINE3 and APRAC–3 have been widely used for modeling carbon monoxide emissions from highways. However, where deposition is of concern, the line source treatment in ISC may be used. Also, where there is a point source in the middle of a substantial road network, the lead concentrations that result from the road network should be treated as background (see Section 9.2); the point source and any nearby major roadways should be modeled separately using the ISC model.

To model an entire major urban area or to model areas without significant sources of lead emissions, as a minimum a proportional (rollback) model may be used for air quality analysis. The rollback philosophy assumes that measured pollutant concentrations are proportional to emissions. However, urban or other dispersion models are encouraged in these circumstances where the use of such models is feasible.

For further information concerning the use of models in the development of lead implementation plans, the documents "Supplementary Guidelines for Lead Implementation Plans,"[40] and "Updated Information on Approval and Promulgation of Lead Implementation Plans,"[41] should be consulted.

7.2.4 Visibility

The visibility regulations as promulgated in December 1980[b] require consideration of

[b] 40 CFR 51.300–307.

the effect of new sources on the visibility values of Federal Class I areas. The state of scientific knowledge concerning identifying, monitoring, modeling, and controlling visibility impairment is contained in an EPA report "Protecting Visibility: An EPA Report to Congress".[42] In 1985, EPA promulgated Federal Implementation Plans (FIPs) for states without approved visibility provisions in their SIPs. A monitoring plan was established as part of the FIPs.[c]

Guidance and a screening model, VISCREEN, is contained in the EPA document "Workbook for Plume Visual Impact Screening and Analysis (Revised)."[43] VISCREEN can be used to calculate the potential impact of a plume of specified emissions for specific transport and dispersion conditions. If a more comprehensive analysis is required, any refined model should be selected in consultation with the EPA Regional Office and the appropriate Federal Land Manager who is responsible for determining whether there is an adverse effect by a plume on a Class I area.

PLUVUE II, listed in Appendix B, may be applied on a case-by-case basis when refined plume visibility evaluations are needed. Plume visibility models have been evaluated against several data sets.[44,45]

7.2.5 Good Engineering Practice Stack Height

The use of stack height credit in excess of Good Engineering Practice (GEP) stack height or credit resulting from any other dispersion technique is prohibited in the development of emission limitations by 40 CFR 51.118 and 40 CFR 51.164. The definitions of GEP stack height and dispersion technique are contained in 40 CFR 51.100. Methods and procedures for making the appropriate stack height calculations, determining stack height credits and an example of applying those techniques are found in references 46, 47, 48, and 49.

If stacks for new or existing major sources are found to be less than the height defined by EPA's refined formula for determining GEP height,[d] then air quality impacts associated with cavity or wake effects due to the nearby building structures should be determined. Detailed downwash screening procedures [18] for both the cavity and wake regions should be followed. If more refined concentration estimates are required, the Industrial Source Complex (ISC2) model contains algorithms for building wake calculations and should be used. Fluid modeling can provide a great deal of additional information for evaluating and describing the cavity and wake effects.

7.2.6 Long Range Transport (LRT) (i.e., beyond 50km)

Section 165(e) of the Clean Air Act requires that suspected significant impacts on PSD Class I areas be determined. However, 50km is the useful distance to which most Gaussian models are considered accurate for setting emission limits. Since in many cases PSD analyses may show that Class I areas may be threatened at distances greater than 50km from new sources, some procedure is needed to (1) determine if a significant impact will occur, and (2) identify the model to be used in setting an emission limit if the Class I increments are threatened (models for this purpose should be approved for use on a case-by-case basis as required in section 3.2). This procedure and the models selected for use should be determined in consultation with the EPA Regional Office and the appropriate Federal Land Manager (FLM). While the ultimate decision on whether a Class I area is adversely affected is the responsibility of the permitting authority, the FLM has an affirmative responsibility to protect air quality related values that may be affected.

If LRT is determined to be important, then estimates utilizing an appropriate refined model for receptors at distances greater than 50 km should be obtained. MESOPUFF II, listed in appendix B, may be applied on a case-by-case basis when LRT estimates are needed. Additional information on applying this model is contained in the EPA document "A Modeling Protocol For Applying MESOPUFF II to Long Range Transport Problems".[111]

7.2.7 Modeling Guidance for Other Governmental Programs

When using the models recommended or discussed in this guideline in support of programmatic requirements not specifically covered by EPA regulations, the model user should consult the appropriate Federal or State agency to ensure the proper application and use of that model. For modeling associated with PSD permit applications that involve a Class I area, the appropriate Federal Land Manager should be consulted on all modeling questions.

The Offshore and Coastal Dispersion (OCD) model [112] was developed by the Minerals Management Service and is recommended for estimating air quality impact from offshore sources on onshore flat terrain areas. The OCD model is not recommended for use in air quality impact assessments for onshore sources. Sources located on or just inland of a shoreline where fumigation is expected should be treated in accordance with section 8.2.9.

The Emissions and Dispersion Modeling System (EDMS) [113] was developed by the Federal Aviation Administration and the United States Air Force and is recommended for air quality assessment of primary pollutant impacts at airports or air bases. Regulatory application of EDMS is intended for estimating the cumulative effect of changes in aircraft operations, point source, and mobile source emissions on pollutant concentrations. It is not intended for PSD, SIP, or other regulatory air quality analyses of point or mobile sources at or peripheral to airport property that are independent of changes in aircraft operations. If changes in other than aircraft operations are associated with analyses, a model recommended in chapter 4, 5, or 6 should be used.

7.2.8 Air Pathway Analyses (Air Toxics and Hazardous Waste)

Modeling is becoming an increasingly important tool for regulatory control agencies to assess the air quality impact of releases of toxics and hazardous waste materials. Appropriate screening techniques [114,115] for calculating ambient concentrations due to various well-defined neutrally buoyant toxic/hazardous pollutant releases are available.

Several regulatory programs within EPA have developed modeling techniques and guidance for conducting air pathway analyses as noted in references 116–129. ISC2 forms the basis of the modeling procedures for air pathway analyses of many of these regulatory programs and, where identified, is appropriate for obtaining refined ambient concentration estimates of neutrally buoyant continuous air toxic releases from traditional sources. Appendix A to this Guideline contains additional models appropriate for obtaining refined estimates of continuous air toxic releases from traditional sources. Appendix B contains models that may be used on a case-by-case basis for obtaining refined estimates of denser-than-air intermittent gaseous releases, e.g., DEGADIS; [130] guidance for the use of such models is also available.[131]

Many air toxics models require input of chemical properties and/or chemical engineering variables in order to appropriately characterize the source emissions prior to dispersion in the atmosphere; reference 132 is one source of helpful data. In addition, EPA has numerous programs to determine emission factors and other estimates of air toxic emissions. The Regional Office should be consulted for guidance on appropriate emission estimating procedures and any uncertainties that may be associated with them.

8.0 General Modeling Considerations

8.1 Discussion

This section contains recommendations concerning a number of different issues not explicitly covered in other sections of this guide. The topics covered here are not specific to any one program or modeling area but are common to nearly all modeling analyses.

8.2 Recommendations

8.2.1 Design Concentrations

8.2.1.1 *Design Concentrations for Criteria Pollutants with Deterministic Standards.* An air quality analysis for SO_2, CO, Pb, and NO_2 is required to determine if the source will (1) cause a violation of the NAAQS, or (2) cause or contribute to air quality deterioration greater than the specified allowable PSD increment. For the former, background concentration (see Section 9.2) should be added to the estimated impact of the source to determine the design concentration. For the latter, the design concentration includes impact from all increment consuming sources.

If the air quality analyses are conducted using the period of meteorological input data recommended in section 9.3.1.2 (e.g., 5 years of NWS data or 1 year of site-specific data), then the design concentration based on the highest, second-highest short term concentration or long term average, whichever is controlling, should be used to determine emission limitations to assess

[c] 40 CFR 51.300–307.

[d] The EPA refined formula height is defined as H + 1.5L (see Reference 46).

compliance with the NAAQS and to determine PSD increments.

When sufficient and representative data exist for less than a 5-year period from a nearby NWS site, or when on-site data have been collected for less than a full continuous year, or when it has been determined that the on-site data may not be temporally representative, then the highest concentration estimate should be considered the design value. This is because the length of the data record may be too short to assure that the conditions producing worst-case estimates have been adequately sampled. The highest value is then a surrogate for the concentration that is not to be exceeded more than once per year (the wording of the deterministic standards). Also, the highest concentration should be used whenever selected worst-case conditions are input to a screening technique. This specifically applies to the use of techniques such as outlined in "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised".[18] Specific guidance for CO may be found in the "Guideline for Modeling Carbon Monoxide from Roadway Intersections".[34]

If the controlling concentration is an annual average value and multiple years of data (on-site or NWS) are used, then the design value is the highest of the annual averages calculated for the individual years. If the controlling concentration is a quarterly average and multiple years are used, then the highest individual quarterly average should be considered the design value.

As long a period of record as possible should be used in making estimates to determine design values and PSD increments. If more than 1 year of site-specific data is available, it should be used.

8.2.1.2 *Design Concentrations for Criteria Pollutants with Expected Exceedance Standards.* Specific instructions for the determination of design concentrations for criteria pollutants with expected exceedance standards, ozone and PM–10, are contained in special guidance documents for the preparation of SIPs for those pollutants.[86 108] For all SIP revisions the user should check with the Regional Office to obtain the most recent guidance documents and policy memoranda concerning the pollutant in question.

8.2.2 Critical Receptor Sites

Receptor sites for refined modeling should be utilized in sufficient detail to estimate the highest concentrations and possible violations of a NAAQS or a PSD increment. In designing a receptor network, the emphasis should be placed on receptor resolution and location, not total number of receptors. The selection of receptor sites should be a case-bycase determination taking into consideration the topography, the climatology, monitor sites, and the results of the initial screening procedure. For large sources (those equivalent to a 500 MW power plant) and where violations of the NAAQS or PSD increment are likely, 360 receptors for a polar coordinate grid system and 400 receptors for a rectangular grid system, where the distance from the source to the farthest receptor is 10km, are usually adequate to identify areas of high concentration. Additional receptors may be needed in the high concentration location if greater resolution is indicated by terrain or source factors.

8.2.3 Dispersion Coefficients

Gaussian models used in most applications should employ dispersion coefficients consistent with those contained in the preferred models in Appendix A. Factors such as averaging time, urban/rural surroundings, and type of source (point vs. line) may dictate the selection of specific coefficients. Generally, coefficients used in appendix A models are identical to, or at least based on, Pasquill-Gifford coefficients[50] in rural areas and McElroy-Pooler[51] coefficients in urban areas.

Research is continuing toward the development of methods to determine dispersion coefficients directly from measured or observed variables.[52 53] No method to date has proved to be widely applicable. Thus, direct measurement, as well as other dispersion coefficients related to distance and stability, may be used in Gaussian modeling only if a demonstration can be made that such parameters are more applicable and accurate for the given situation than are algorithms contained in the preferred models.

Buoyancy-induced dispersion (BID), as identified by Pasquill,[54] is included in the preferred models and should be used where buoyant sources, e.g., those involving fuel combustion, are involved.

8.2.4 Stability Categories

The Pasquill approach to classifying stability is generally required in all preferred models (Appendix A). The Pasquill method, as modified by Turner,[55] was developed for use with commonly observed meteorological data from the National Weather Service and is based on cloud cover, insolation and wind speed.

Procedures to determine Pasquill stability categories from other than NWS data are found in subsection 9.3. Any other method to determine Pasquill stability categories must be justified on a case-by-case basis.

For a given model application where stability categories are the basis for selecting dispersion coefficients, both σ_y and σ_z should be determined from the same stability category. "Split sigmas" in that instance are not recommended.

Sector averaging, which eliminates the σ_y term, is generally acceptable only to determine long term averages, such as seasonal or annual, and when the meteorological input data are statistically summarized as in the STAR summaries. Sector averaging is, however, commonly acceptable in complex terrain screening methods.

8.2.5 Plume Rise

The plume rise methods of Briggs[56 57] are incorporated in the preferred models and are recommended for use in all modeling applications. No provisions in these models are made for fumigation or multistack plume rise enhancement or the handling of such special plumes as flares; these problems should be considered on a case-by-case basis.

Since there is insufficient information to identify and quantify dispersion during the transitional plume rise period, gradual plume rise is not generally recommended for use. There are two exceptions where the use of gradual plume rise is appropriate: (1) In complex terrain screening procedures to determine close-in impacts; (2) when calculating the effects of building wakes. The building wake algorithm in the ISC2 model incorporates and automatically (i.e., internally) exercises the gradual plume rise calculations. If the building wake is calculated to affect the plume for any hour, gradual plume rise is also used in downwind dispersion calculations to the distance of final plume rise, after which final plume rise is used.

Stack tip downwash generally occurs with poorly constructed stacks and when the ratio of the stack exit velocity to wind speed is small. An algorithm developed by Briggs (Hanna, et al.)[57] is the recommended technique for this situation and is found in the point source preferred models.

Where aerodynamic downwash occurs due to the adverse influence of nearby structures, the algorithms included in the ISC2 model[58] should be used.

8.2.6 Chemical Transformation

The chemical transformation of SO_2 emitted from point sources or single industrial plants in rural areas is generally assumed to be relatively unimportant to the estimation of maximum concentrations when travel time is limited to a few hours. However, in urban areas, where synergistic effects among pollutants are of considerable consequence, chemical transformation rates may be of concern. In urban area applications, a half-life of 4 hours[55] may be applied to the analysis of SO_2 emissions. Calculations of transformation coefficients from site-specific studies can be used to define a "half-life" to be used in a Gaussian model with any travel time, or in any application, if appropriate documentation is provided. Such conversion factors for pollutant half-life should not be used with screening analyses.

Complete conversion of NO to NO_2 should be assumed for all travel time when simple screening techniques are used to model point source emissions of nitrogen oxides. If a Gaussian model is used, and data are available on seasonal variations in maximum ozone concentrations, the Ozone Limiting Method[36] is recommended. In refined analyses, case-by case conversion rates based on technical studies appropriate to the site in question may be used. The use of more sophisticated modeling techniques should be justified for individual cases.

Use of models incorporating complex chemical mechanisms should be considered only on a case-by-case basis with proper demonstration of applicability. These are generally regional models not designed for the evaluation of individual sources but used primarily for region-wide evaluations. Visibility models also incorporate chemical transformation mechanisms which are an integral part of the visibility model itself and should be used in visibility assessments.

8.2.7 Gravitational Settling and Deposition

An "infinite half-life" should be used for estimates of total suspended particulate

concentrations when Gaussian models containing only exponential decay terms for treating settling and deposition are used.

Gravitational settling and deposition may be directly included in a model if either is a significant factor. At least one preferred model (ISC) contains settling and deposition algorithms and is recommended for use when particulate matter sources can be quantified and settling and deposition are problems.

8.2.8 Urban/Rural Classification

The selection of either rural or urban dispersion coefficients in a specific application should follow one of the procedures suggested by Irwin[59] and briefly described below. These include a land use classification procedure or a population based procedure to determine whether the character of an area is primarily urban or rural.

Land Use Procedure: (1) Classify the land use within the total area, A_o, circumscribed by a 3km radius circle about the source using the meteorological land use typing scheme proposed by Auer[60]; (2) if land use types I1, I2, C1, R2, and R3 account for 50 percent or more of A_o, use urban dispersion coefficients; otherwise, use appropriate rural dispersion coefficients.

Population Density Procedure: (1) Compute the average population density, $\bar{p}$ per square kilometer with A_o as defined above; (2) If $\bar{p}$ is greater than 750 people/km^2, use urban dispersion coefficients; otherwise use appropriate rural dispersion coefficients.

Of the two methods the land use procedure is considered more definitive. Population density should be used with caution and should not be applied to highly industrialized areas where the population density may be low and thus a rural classification would be indicated, but the area is sufficiently built-up so that the urban land use criteria would be satisfied. In this case, the classification should already be "urban" and urban dispersion parameters should be used.

Sources located in an area defined as urban should be modeled using urban dispersion parameters. Sources located in areas defined as rural should be modeled using the rural dispersion parameters. For analyses of whole urban complexes, the entire area should be modeled as an urban region if most of the sources are located in areas classified as urban.

8.2.9 Fumigation

Fumigation occurs when a plume (or multiple plumes) is emitted into a stable layer of air and that layer is subsequently mixed to the ground either through convective transfer of heat from the surface or because of advection to less stable surroundings. Fumigation may cause excessively high concentrations but is usually rather short-lived at a given receptor. There are no recommended refined techniques to model this phenomenon. There are, however, screening procedures (see "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources"[18]) that may be used to approximate the concentrations. Considerable care should be exercised in using the results obtained from the screening techniques.

Fumigation is also an important phenomenon on and near the shoreline of bodies of water. This can affect both individual plumes and area-wide emissions. When fumigation conditions are expected to occur from a source or sources with tall stacks located on or just inland of a shoreline, this should be addressed in the air quality modeling analysis. The Shoreline Dispersion Model (SDM) listed in Appendix B may be applied on a case-by-case basis when air quality estimates under shoreline fumigation conditions are needed.[133] Information on the results of EPA's evaluation of this model together with other coastal fumigation models may be found in reference 134. Selection of the appropriate model for applications where shoreline fumigation is of concern should be determined in consultation with the Regional Office.

8.2.10 Stagnation

Stagnation conditions are characterized by calm or very low wind speeds, and variable wind directions. These stagnant meteorological conditions may persist for several hours to several days. During stagnation conditions, the dispersion of air pollutants, especially those from low-level emissions sources, tends to be minimized, potentially leading to relatively high ground-level concentrations.

When stagnation periods such as these are found to occur, they should be addressed in the air quality modeling analysis. WYNDvalley, listed in appendix B, may be applied on a case-by-case basis for stagnation periods of 24 hours or longer in valley-type situations. Caution should be exercised when applying the model to elevated point sources. Users should consult with the appropriate Regional Office prior to regulatory application of WYNDvalley.

8.2.11 Calibration of Models

Calibration of long term multi-source models has been a widely used procedure even though the limitations imposed by statistical theory on the reliability of the calibration process for long term estimates are well known.[61] In some cases, where a more accurate model is not available, calibration may be the best alternative for improving the accuracy of the estimated concentrations needed for control strategy evaluations.

Calibration of short term models is not common practice and is subject to much greater error and misunderstanding. There have been attempts by some to compare short term estimates and measurements on an event-by-event basis and then to calibrate a model with results of that comparison. This approach is severely limited by uncertainties in both source and meteorological data and therefore it is difficult to precisely estimate the concentration at an exact location for a specific increment of time. Such uncertainties make calibration of short term models of questionable benefit. Therefore, short term model calibration is unacceptable.

9.0 Model Input Data

Data bases and related procedures for estimating input parameters are an integral part of the modeling procedure. The most appropriate data available should always be selected for use in modeling analyses. Concentrations can vary widely depending on the source data or meteorological data used. Input data are a major source of inconsistencies in any modeling analysis. This section attempts to minimize the uncertainty associated with data base selection and use by identifying requirements for data used in modeling. A checklist of input data requirements for modeling analyses is included as appendix C. More specific data requirements and the format required for the individual models are described in detail in the users' guide for each model.

9.1 Source Data

9.1.1 Discussion

Sources of pollutants can be classified as point, line and area/volume sources. Point sources are defined in terms of size and may vary between regulatory programs. The line sources most frequently considered are roadways and streets along which there are well-defined movements of motor vehicles, but they may be lines of roof vents or stacks such as in aluminum refineries. Area and volume sources are often collections of a multitude of minor sources with individually small emissions that are impractical to consider as separate point or line sources. Large area sources are typically treated as a grid network of square areas, with pollutant emissions distributed uniformly within each grid square.

Emission factors are compiled in an EPA publication commonly known as AP–42;[62] an indication of the quality and amount of data on which many of the factors are based is also provided. Other information concerning emissions is available in EPA publications relating to specific source categories. The Regional Office should be consulted to determine appropriate source definitions and for guidance concerning the determination of emissions from and techniques for modeling the various source types.

9.1.2 Recommendations

For point source applications the load or operating condition that causes maximum ground-level concentrations should be established. As a minimum, the source should be modeled using the design capacity (100 percent load). If a source operates at greater than design capacity for periods that could result in violations of the standards or PSD increments, this load[e] should be modeled. Where the source operates at substantially less than design capacity, and the changes in the stack parameters associated with the operating conditions could lead to higher ground level concentrations, loads such as 50 percent and 75 percent of capacity should also be modeled. A range of operating conditions

[e] Malfunctions which may result in excess emissions are not considered to be a normal operating condition. They generally should not be considered in determining allowable emissions. However, if the excess emissions are the result of poor maintenance, careless operation, or other preventable conditions, it may be necessary to consider them in determining source impact.

should be considered in screening analyses; the load causing the highest concentration, in addition to the design load, should be included in refined modeling. The following example for a power plant is typical of the kind of data on source characteristics and operating conditions that may be needed. Generally, input data requirements for air quality models necessitate the use of metric units; where English units are common for engineering usage, a conversion to metric is required.

a. Plant layout. The connection scheme between boilers and stacks, and the distance and direction between stacks, building parameters (length, width, height, location and orientation relative to stacks) for plant structures which house boilers, control equipment, and surrounding buildings within a distance of approximately five stack heights.

b. Stack parameters. For all stacks, the stack height and inside diameter (meters), and the temperature (K) and volume flow rate (actual cubic meters per second) or exit gas velocity (meters per second) for operation at 100 percent, 75 percent and 50 percent load.

c. Boiler size. For all boilers, the associated megawatts, 10^6 BTU/hr, and pounds of steam per hour, and the design and/or actual fuel consumption rate for 100 percent load for coal (tons/hour), oil (barrels/hour), and natural gas (thousand cubic feet/hour).

d. Boiler parameters. For all boilers, the percent excess air used, the boiler type (e.g., wet bottom, cyclone, etc.), and the type of firing (e.g., pulverized coal, front firing, etc.).

e. Operating conditions. For all boilers, the type, amount and pollutant contents of fuel, the total hours of boiler operation and the boiler capacity factor during the year, and the percent load for peak conditions.

f. Pollution control equipment parameters. For each boiler served and each pollutant affected, the type of emission control equipment, the year of its installation, its design efficiency and mass emission rate, the data of the last test and the tested efficiency, the number of hours of operation during the latest year, and the best engineering estimate of its projected efficiency if used in conjunction with coal combustion; data for any anticipated modifications or additions.

g. Data for new boilers or stacks. For all new boilers and stacks under construction and for all planned modifications to existing boilers or stacks, the scheduled date of completion, and the data or best estimates available for items (a) through (f) above following completion of construction or modification.

In stationary point source applications for compliance with short term ambient standards, SIP control strategies should be tested using the emission input shown on Table 9–1. When using a refined model, sources should be modeled sequentially with these loads for every hour of the year. To evaluate SIPs for compliance with quarterly and annual standards, emission input data shown in Table 9–1 should again be used. Emissions from area sources should generally be based on annual average conditions. The source input information in each model user's guide should be carefully consulted and the checklist in Appendix C should also be consulted for other possible emission data that could be helpful. PSD NAAQS compliance demonstrations should follow the emission input data shown in Table 9–2. For purposes of emissions trading, new source review and demonstrations, refer to current EPA policy and guidance to establish input data.

Line source modeling of streets and highways requires data on the width of the roadway and the median strip, the types and amounts of pollutant emissions, the number of lanes, the emissions from each lane and the height of emissions. The location of the ends of the straight roadway segments should be specified by appropriate grid coordinates. Detailed information and data requirements for modeling mobile sources of pollution are provided in the user's manuals for each of the models applicable to mobile sources.

The impact of growth on emissions should be considered in all modeling analyses covering existing sources. Increases in emissions due to planned expansion or planned fuel switches should be identified. Increases in emissions at individual sources that may be associated with a general industrial/commercial/residential expansion in multi-source urban areas should also be treated. For new sources the impact of growth on emissions should generally be considered for the period prior to the start-up date for the source. Such changes in emissions should treat increased area source emissions, changes in existing point source emissions which were not subject to preconstruction review, and emissions due to sources with permits to construct that have not yet started operation.

TABLE 9–1.—MODEL EMISSION INPUT DATA FOR POINT SOURCES [1]

Averaging time	Emission limit (#/MMBtu)[2] ×	Operating level (MMBtu/hr)[2] ×	Operating factor (e.g., hr/yr, hr/day)
Stationary Point Source(s) Subject to SIP Emission Limit(s) Evaluation for Compliance with Ambient Standards (Including Areawide Demonstrations)			
Annual & quarterly	Maximum allowable emission limit or federally enforceable permit limit.	Actual or design capacity (whichever is greater), or federally enforceable permit condition.	Actual operating factor averaged over most recent 2 years.[3]
Short term	Maximum allowable emission limit or federally enforceable permit limit.	Actual or design capacity (whichever is greater), or federally enforceable permit condition[4].	Continuous operation, i.e., all hours of each time period under consideration (for all hours of the meteorological data base).[5]
Nearby Background Source(s)—Same input requirements as for stationary point source(s) above.			
Other Background Source(s)—If modeled (see Section 9.2.3), input data requirements are defined below.			
Annual & quarterly	Maximum allowable emission limit or federally enforceable permit limit.	Annual level when actually operating, averaged over the most recent 2 years[3].	Actual operating factor averaged over the most recent 2 years.[3]
Short term	Maximum allowable emission limit or federally enforceable permit limit.	Annual level when actually operating, averaged over the most recent 2 years[3].	Continuous operation, i.e., all hours of each time period under consideration (for all hours of the meteorological data base).[5]

[1] The model input data requirements shown on this table apply to stationary source control strategies for STATE IMPLEMENTATION PLANS. For purposes of emissions trading, new source review, or prevention of significant deterioration, other model input criteria may apply. Refer to the policy and guidance for these programs to establish the input data.

[2] Terminology applicable to fuel burning sources; analogous terminology (e.g., #/throughput) may be used for other types of sources.

[3] Unless it is determined that this period is not representative.

[4] Operating levels such as 50 percent and 75 percent of capacity should also be modeled to determine the load causing the highest concentration.

[5] If operation does not occur for all hours of the time period of consideration (e.g., 3 or 24 hours) and the source operation is constrained by a federally enforceable permit condition, an appropriate adjustment to the modeled emission rate may be made (e.g., if operation is only 8 a.m. to 4 p.m. each day, only these hours will be modeled with emissions from the source. Modeled emissions should not be averaged across non-operating time periods.)

TABLE 9–2.—POINT SOURCE MODEL INPUT DATA (EMISSIONS) FOR PSD NAAQS COMPLIANCE DEMONSTRATIONS

Averaging time	Emission limit (#/MMBtu) [1]	×	Operating level (MMBtu) [1]	×	Operating factor (e.g., hr/yr, hr/day)
Proposed Major New or Modified Source					
Annual & quarterly	Maximum allowable emission limit or federally enforceable permit limit.		Design capacity or federally enforceable permit condition.		Continuous operation (i.e., 8760 hours).[2]
Short term (≤ 24 hours).	Maximum allowable emission limit or federally enforceable permit limit.		Design capacity or federally enforceable permit condition [3].		Continuous operation (i.e., all hours of each time period under consideration) (for all hours of the meteorological data base).[2]
Nearby Background Source(s) [4]					
Annual & quarterly	Maximum allowable emission limit or federally enforceable permit limit.		Actual or design capacity (whichever is greater), or federally enforceable permit condition.		Actual operating factor averaged over the most recent 2 years.[5 7]
Short term (≤ 24 hours).	Maximum allowable emission limit or federally enforceable permit limit.		Actual or design capacity (whichever is greater), or federally enforceable permit condition [3].		Continuous operation (i.e., all hours of each time period under consideration) (for all hours of the meteorological data base).[2]
Other Background Source(s) [6]					
Annual & quarterly	Maximum allowable emission limit or federally enforceable permit limit.		Annual level when actually operating, averaged over the most recent 2 years [5].		Actual operating factor averaged over the most recent 2 years.[5 7]
Short term (≤ 24 hours).	Maximum allowable emission limit or federally enforceable permit limit.		Annual level when actually operating, averaged over the most recent 2 years [5].		Continuous operation (i.e., all hours of each time period under consideration) (for all hours of the meteorological data base).[2]

[1] Terminology applicable to fuel burning sources; analogous terminology (e.g., #/throughput) may be used for other types of sources.
[2] If operation does not occur for all hours of the time period of consideration (e.g., 3 or 24 hours) and the source operation is constrained by a federally enforceable permit condition, an appropriate adjustment to the modeled emission rate may be made (e.g., if operation is only 8:00 a.m. to 4:00 p.m. each day, only these hours will be modeled with emissions from the source. Modeled emissions should not be averaged across non-operating time periods.
[3] Operating levels such as 50 percent and 75 percent of capacity should also be modeled to determine the load causing the highest concentration.
[4] Includes existing facility to which modification is proposed if the emissions from the existing facility will not be affected by the modification. Otherwise use the same parameters as for major modification.
[5] Unless it is determined that this period is not representative.
[6] Generally, the ambient impacts from non-nearby background sources can be represented by air quality data unless adequate data do not exist.
[7] For those permitted sources not yet in operation or that have not established an appropriate factor, continuous operation (i.e., 8760 hours) should be used.

9.2 Background Concentrations

9.2.1 Discussion

Background concentrations are an essential part of the total air quality concentration to be considered in determining source impacts. Background air quality includes pollutant concentrations due to: (1) Natural sources; (2) nearby sources other than the one(s) currently under consideration; and (3) unidentified sources.

Typically, air quality data should be used to establish background concentrations in the vicinity of the source(s) under consideration. The monitoring network used for background determinations should conform to the same quality assurance and other requirements as those networks established for PSD purposes.[63] An appropriate data validation procedure should be applied to the data prior to use.

If the source is not isolated, it may be necessary to use a multi-source model to establish the impact of nearby sources. Background concentrations should be determined for each critical (concentration) averaging time.

9.2.2 Recommendations (Isolated Single Source)

Two options are available to determine the background concentration near isolated sources.

Option One: Use air quality data collected in the vicinity of the source to determine the background concentration for the averaging times of concern.[f] Determine the mean background concentration at each monitor by excluding values when the source in question is impacting the monitor. The mean annual background is the average of the annual concentrations so determined at each monitor. For shorter averaging periods, the meteorological conditions accompanying the concentrations of concern should be identified. Concentrations for meteorological conditions of concern, at monitors not impacted by the source in question, should be averaged for each separate averaging time to determine the average background value. Monitoring sites inside a 90° sector downwind of the source may be used to determine the area of impact. One hour concentrations may be added and averaged to determine longer averaging periods.

Option Two: If there are no monitors located in the vicinity of the source, a "regional site" may be used to determine background. A "regional site" is one that is located away from the area of interest but is impacted by similar natural and distant man-made sources.

[f] For purposes of PSD, the location of monitors as well as data quality assurance procedures must satisfy requirements listed in the PSD Monitoring Guidelines.[63]

9.2.3 Recommendations (Multi-Source Areas)

In multi-source areas two components of background should be determined.

Nearby Sources: All sources expected to cause a significant concentration gradient in the vicinity of the source or sources under consideration for emission limit(s) should be explicitly modeled. For evaluation for compliance with the short term and annual ambient standards, the nearby sources should be modeled using the emission input data shown in Table 9–1 or 9–2. The number of such sources is expected to be small except in unusual situations. The nearby source inventory should be determined in consultation with the reviewing authority. It is envisioned that the nearby sources and the sources under consideration will be evaluated together using an appropriate Appendix A model.

The impact of the nearby sources should be examined at locations where interactions between the plume of the point source under consideration and those of nearby sources (plus natural background) can occur. Significant locations include: (1) The area of maximum impact of the point source; (2) the area of maximum impact of nearby sources; and (3) the area where all sources combine to cause maximum impact. These locations may be identified through trial and error analyses.

Other Sources: That portion of the background attributable to all other sources (e.g., natural sources, minor sources and distant major sources) should be determined by the procedures found in section 9.2.2 or by application of a model using Table 9–1 or 9–2.

9.3 Meteorological Input Data

The meteorological data used as input to a dispersion model should be selected on the basis of spatial and climatological (temporal) representativeness as well as the ability of the individual parameters selected to characterize the transport and dispersion conditions in the area of concern. The representativeness of the data is dependent on: (1) The proximity of the meteorological monitoring site to the area under consideration; (2) the complexity of the terrain; (3) the exposure of the meteorological monitoring site; and (4) the period of time during which data are collected. The spatial representativeness of the data can be adversely affected by large distances between the source and receptors of interest and the complex topographic characteristics of the area. Temporal representativeness is a function of the year-to-year variations in weather conditions.

Model input data are normally obtained either from the National Weather Service or as part of an on-site measurement program. Local universities, FAA, military stations, industry and pollution control agencies may also be sources of such data. Some recommendations for the use of each type of data are included in this subsection.

9.3.1 Length of Record of Meteorological Data

9.3.1.1 *Discussion.* The model user should acquire enough meteorological data to ensure that worst-case meteorological conditions are adequately represented in the model results. The trend toward statistically based standards suggests a need for all meteorological conditions to be adequately represented in the data set selected for model input. The number of years of record needed to obtain a stable distribution of conditions depends on the variable being measured and has been estimated by Landsberg and Jacobs[64] for various parameters. Although that study indicates in excess of 10 years may be required to achieve stability in the frequency distributions of some meteorological variables, such long periods are not reasonable for model input data. This is due in part to the fact that hourly data in model input format are frequently not available for such periods and that hourly calculations of concentration for long periods are prohibitively expensive. A recent study[65] compared various periods from a 17-year data set to determine the minimum number of years of data needed to approximate the concentrations modeled with a 17-year period of meteorological data from one station. This study indicated that the variability of model estimates due to the meteorological data input was adequately reduced if a 5-year period of record of meteorological input was used.

9.3.1.2 *Recommendations.* Five years of representative meteorological data should be used when estimating concentrations with an air quality model. Consecutive years from the most recent, readily available 5-year period are preferred. The meteorological data may be data collected either onsite or at the nearest National Weather Service (NWS) station. If the source is large, e.g., a 500 MW power plant, the use of 5 years of NWS meteorological data or at least 1 year of site-specific data is required.

If one year or more, up to five years, of sitespecific data is available, these data are preferred for use in air quality analyses. Such data should have been subjected to quality assurance procedures as described in Section 9.3.3.2.

For permitted sources whose emission limitations are based on a specific year of meteorological data that year should be added to any longer period being used (e.g., 5 years of NWS data) when modeling the facility at a later time.

9.3.2 National Weather Service Data

9.3.2.1 *Discussion.* The National Weather Service (NWS) meteorological data are routinely available and familiar to most model users. Although the NWS does not provide direct measurements of all the needed dispersion model input variables, methods have been developed and successfully used to translate the basic NWS data to the needed model input. Direct measurements of model input parameters have been made for limited model studies and those methods and techniques are becoming more widely applied; however, most model applications still rely heavily on the NWS data.

There are two standard formats of the NWS data for use in air quality models. The short term models use the standard hourly weather observations available from the National Climatic Data Center (NCDC). These observations are then "preprocessed" before they can be used in the models. "STAR" summaries are available from NCDC for long term model use. These are joint frequency distributions of wind speed, direction and P–G stability category. They are used as direct input to models such as the long term version of ISC.[56]

9.3.2.2 *Recommendations.* The preferred short term models listed in appendix A all accept as input the NWS meteorological data preprocessed into model compatible form. Long-term (monthly seasonal or annual) preferred models use NWS "STAR" summaries. Summarized concentration estimates from the short term models may also be used to develop long-term averages; however, concentration estimates based on the two separate input data sets may not necessarily agree.

Although most NWS measurements are made at a standard height of 10 meters, the actual anemometer height should be used as input to the preferred model.

National Weather Service wind directions are reported to the nearest 10 degrees. A specific set of randomly generated numbers has been developed for use with the preferred EPA models and should be used to ensure a lack of bias in wind direction assignments within the models.

Data from universities, FAA, military stations, industry and pollution control agencies may be used if such data are equivalent in accuracy and detail to the NWS data.

9.3.3 Site-Specific Data

9.3.3.1 *Discussion.* Spatial or geographical representativeness is best achieved by collection of all of the needed model input data at the actual site of the source(s). Site-specific measured data are therefore preferred as model input, provided appropriate instrumentation and quality assurance procedures are followed and that the data collected are representative (free from undue local or "micro" influences) and compatible with the input requirements of the model to be used. However, direct measurements of all the needed model input parameters may not be possible. This section discusses suggestions for the collection and use of on-site data. Since the methods outlined in this section are still being tested, comparison of the model parameters derived using these site-specific data should be compared at least on a spot-check basis, with parameters derived from more conventional observations.

9.3.3.2 *Recommendations—Site-specific Data Collection.* The document "On-Site Meteorological Program Guidance for Regulatory Modeling Applications"[66] provides recommendations on the collection and use of on-site meteorological data. Recommendations on characteristics, siting, and exposure of meteorological instruments and on data recording, processing, completeness requirements, reporting, and archiving are also included. This publication should be used as a supplement to the limited guidance on these subjects now found in the "Ambient Monitoring Guidelines for Prevention of Significant Deterioration"[63] and the "Quality Assurance Handbook for Air Pollution Measurement

Systems"[87] contains such information for meteorological measurements. As a minimum, site-specific measurements of ambient air temperature, transport wind speed and direction, and the parameters to determine Pasquill-Gifford stability categories should be available in meteorological data sets to be used in modeling. Care should be taken to ensure that monitors are located to represent the area of concern and that they are not influenced by very localized effects. Site-specific data for model applications should cover as long a period of measurement as is possible to ensure adequate representation of "worst-case" meteorology. The Regional Office will determine the appropriateness of the measurement locations.

All site-specific data should be reduced to hourly averages. Table 9–3 lists the wind related parameters and the averaging time requirements.

Temperature Measurements. Temperature measurements should be made at standard shelter height (2m) in accordance with the guidance in reference 66.

Wind Measurements. Wind speed and direction should be measured at or near plume height for use in estimating transport and dilution. To approximate this, if a source has a stack below 100m, select the stack top height as the transport wind measurement height. For sources with stacks extending above 100m, a 100m tower is suggested unless the stack top is significantly above 100 meters (200m or more). In cases with stacks 200m or above, the Regional Office should determine the appropriate measurement height on a case-by-case basis. Remote sensing may be a feasible alternative. The dilution wind speed used in determining plume rise and also used in the Gaussian dispersion equation is, by convention, defined as the wind speed at stack top.

Multiple level (typically three or more) measurements of wind temperature and turbulence (wind fluctuation statistics) are required for refined modeling applications in complex terrain. Such measurements should be obtained up to the representative plume height(s) of interest (i.e., the plume height(s) under those conditions important to the determination of the design concentration). The representative plume height(s) of interest should be determined using an appropriate complex terrain screening procedure (e.g., CTSCREEN) and should be documented in the monitoring/modeling protocol. The necessary meteorological measurements should be obtained from an appropriately sited meteorological tower augmented by SODAR if the representative plume height(s) of interest exceed 100m. The meteorological tower need not exceed the lesser of the representative plume height of interest (the highest plume height if there is more than one plume height of interest) or 100m.

For routine tower and surface measurements, the wind speed should be measured using an anemometer, and the wind direction measured using a horizontal vane. Specifications for wind measuring instruments and systems are contained in the "On-Site Meteorological Program Guidance for Regulatory Modeling Applications".[66]

Stability Categories. The Pasquill-Gifford (P–G) stability categories, as originally defined, couple near-surface measurements of wind speed with subjectively determined insolation assessments based on hourly cloud cover and ceiling observations. The wind speed measurements are made at or near 10m. The insolation rate is typically assessed using observations of cloud cover and ceiling based on criteria outlined by Turner.[30] In the absence of site specific observations of cloud cover and ceiling, alternative procedures using wind fluctuation statistics (i.e., the σ_A and σ_E methods)[66] and Turner's method with off-site cloud cover and ceiling and on-site 10m wind speed are recommended.

The two methods of stability classification which use wind fluctuation statistics, the σ_A and σ_E methods, are described in detail in EPA's "On-Site Meteorological Program Guidance for Regulatory Modeling Applications"[66] (note applicable tables in chapter 6). In the case of the σ_A method it should be noted that wind meander may occasionally bias the determination of σ_A and thus lead to an erroneous determination of the P–G stability category. To minimize wind direction meander contributions, σ_A may be determined for each of four 15-minute periods in an hour. However, 360 samples are needed during each 15-minute period. If the σ_A method is being used for stability determinations in these situations, take the square root of one-quarter of the sum of the square of the four 15 minute σ_A's, as illustrated in the footnote to Table 9–3. While this approach is an acceptable alternative for determining stability, as qualified above, σ_A's calculated in this manner are not likely to be suitable for input to models under development that are designed to accept on-site hourly σ's based on 60-minute periods. For additional information on stability classification using wind fluctuation statistics, see references 68–72.

In summary, when on-site data are being used, P–G stability categories should be estimated based on:

(1) Turner's method[55] using site-specific data which include cloud cover, ceiling height and surface (~10m) wind speeds;

(2) σ_E from site-specific measurements in accordance with guidance;[66]

(3) σ_A from site-specific measurements in accordance with guidance;[66]

(4) Turner's method[55] using site-specific wind speed with cloud cover and ceiling height from a nearby NWS site.

Meteorological Data Processors. The following meteorological preprocessors are recommended by EPA: RAMMET, PCRAMMET, STAR, PCSTAR, MPRM,[135] and METPRO.[24] RAMMET is the recommended meteorological preprocessor for use in applications employing hourly NWS data. The RAMMET format is the standard data input format used in sequential Gaussian models recommended by EPA. PCRAMMET is the PC equivalent of the mainframe version (RAMMET). STAR is the recommended preprocessor for use in applications employing joint frequency distributions (wind direction and wind speed by stability class) based on NWS data. PCSTAR is the PC equivalent of the mainframe version (STAR). MPRM is the recommended preprocessor for use in applications employing on-site meteorological data. MPRM is a general purpose meteorological data preprocessor which supports regulatory models requiring RAMMET formatted data and STAR formatted data. In addition to on-site data, MPRM provides equivalent processing of NWS data. METPRO is the required meteorological data preprocessor for use with CTDMPLUS. All of the above mentioned data preprocessors are available for downloading from the SCRAM BBS.[19]

TABLE 9–3.—AVERAGING TIMES FOR SITE-SPECIFIC WIND AND TURBULENCE MEASUREMENTS

Parameter	Averaging time
Surface wind speed (for use in stability determinations).	1-hr
Transport direction	1-hr.
Dilution wind speed	1-hr.
Turbulence measurements (σ_E and σ_A) for use in stability determinations.	1-hr. [1]

[1] To minimize meander effects in σ_A when wind conditions are light and/or variable, determine the hourly average σ value from four sequential 15-minute σ's according to the following formula:

$$\sigma_{1-hr} = \sqrt{\frac{\sigma_{15}^2 + \sigma_{15}^2 + \sigma_{15}^2 + \sigma_{15}^2}{4}}$$

9.3.4 Treatment of Calms

9.3.4.1 *Discussion.* Treatment of calm or light and variable wind poses a special problem in model applications since Gaussian models assume that concentration is inversely proportional to wind speed. Furthermore, concentrations become unrealistically large when wind speeds less than 1 m/s are input to the model. A procedure has been developed for use with NWS data to prevent the occurrence of overly conservative concentration estimates during periods of calms. This procedure acknowledges that a Gaussian plume model does not apply during calm conditions and that our knowledge of plume behavior and wind patterns during these conditions does not, at present, permit the development of a better technique. Therefore, the procedure disregards hours which are identified as calm. The hour is treated as missing and a

convention for handling missing hours is recommended.

Preprocessed meteorological data input to most appendix A EPA models substitute a 1.00 m/s wind speed and the previous direction for the calm hour. The new treatment of calms in those models attempts to identify the original calm cases by checking for a 1.00 m/s wind speed coincident with a wind direction equal to the previous hour's wind direction. Such cases are then treated in a prescribed manner when estimating short term concentrations.

9.3.4.2 *Recommendations.* Hourly concentrations calculated with Gaussian models using calms should not be considered valid; the wind and concentration estimates for these hours should be disregarded and considered to be missing. Critical concentrations for 3-, 8-, and 24-hour averages should be calculated by dividing the sum of the hourly concentration for the period by the number of valid or nonmissing hours. If the total number of valid hours is less than 18 for 24-hour averages, less than 6 for 8-hour averages or less than 3 for 3-hour averages, the total concentration should be divided by 18 for the 24-hour average, 6 for the 8-hour average and 3 for the 3-hour average. For annual averages, the sum of all valid hourly concentrations is divided by the number of non-calm hours during the year. A post-processor computer program, CALMPRO[73] has been prepared following these instructions and has been hardwired in the following models: RAM, ISC, MPTER and CRSTER.

The recommendations above apply to the use of calms for short term averages and do not apply to the determination of long term averages using "STAR" data summaries. Calms should continue to be included in the preparation of "STAR" summaries. A treatment for calms and very light winds is built into the software that produces the "STAR" summaries.

Stagnant conditions, including extended periods of calms, often produce high concentrations over wide areas for relatively long averaging periods. The standard short term Gaussian models are often not applicable to such situations. When stagnation conditions are of concern, other modeling techniques should be considered on a case-by-case basis. (See also section 8.2.10)

When used in Gaussian models, measured on-site wind speeds of less than 1 m/s but higher than the response threshold of the instrument should be input as 1m/s; the corresponding wind direction should also be input. Observations below the response threshold of the instrument are also set to 1 m/s but the wind direction from the previous hour is used. If the wind speed or direction can not be determined, that hour should be treated as missing and short term averages should then be calculated as above.

10.0 Accuracy and Uncertainty of Models

10.1 Discussion

Increasing reliance has been placed on concentration estimates from models as the primary basis for regulatory decisions concerning source permits and emission control requirements. In many situations, such as review of a proposed source, no practical alternative exists. Therefore, there is an obvious need to know how accurate models really are and how any uncertainty in the estimates affects regulatory decisions. EPA recognizes the need for incorporating such information and has sponsored workshops[11,74] on model accuracy, the possible ways to quantify accuracy, and on considerations in the incorporation of model accuracy and uncertainty in the regulatory process. The Second (EPA) Conference on Air Quality Modeling, August 1982,[75] was devoted to that subject.

10.1.1 Overview of Model Uncertainty

Dispersion models generally attempt to estimate concentrations at specific sites that really represent an ensemble average of numerous repetitions of the same event. The event is characterized by measured or "known" conditions that are input to the models, e.g., wind speed, mixed layer height, surface heat flux, emission characteristics, etc. However, in addition to the known conditions, there are unmeasured or unknown variations in the conditions of this event, e.g., unresolved details of the atmospheric flow such as the turbulent velocity field. These unknown conditions, may vary among repetitions of the event. As a result, deviations in observed concentrations from their ensemble average, and from the concentrations estimated by the model, are likely to occur even though the known conditions are fixed. Even with a perfect model that predicts the correct ensemble average, there are likely to be deviations from the observed concentrations in individual repetitions of the event, due to variations in the unknown conditions. The statistics of these concentration residuals are termed "inherent" uncertainty. Available evidence suggests that this source of uncertainty alone may be responsible for a typical range of variation in concentrations of as much as #50 percent.[76]

Moreover, there is "reducible" uncertainty[77] associated with the model and its input conditions; neither models nor data bases are perfect. Reducible uncertainties are caused by: (1) Uncertainties in the input values of the known conditions—emission characteristics and meteorological data; (2) errors in the measured concentrations which are used to compute the concentration residuals; and (3) inadequate model physics and formulation. The "reducible" uncertainties can be minimized through better (more accurate and more representative) measurements and better model physics.

To use the terminology correctly, reference to model accuracy should be limited to that portion of reducible uncertainty which deals with the physics and the formulation of the model. The accuracy of the model is normally determined by an evaluation procedure which involves the comparison of model concentration estimates with measured air quality data.[78] The statement of accuracy is based on statistical tests or performance measures such as bias, noise, correlation, etc.[11] However, information that allows a distinction between contributions of the various elements of inherent and reducible uncertainty is only now beginning to emerge. As a result most discussions of the accuracy of models make no quantitative distinction between (1) limitations of the model versus (2) limitations of the data base and of knowledge concerning atmospheric variability. The reader should be aware that statements on model accuracy and uncertainty may imply the need for improvements in model performance that even the "perfect" model could not satisfy.

10.1.2 Studies of Model Accuracy

A number of studies[79,80] have been conducted to examine model accuracy, particularly with respect to the reliability of short-term concentrations required for ambient standard and increment evaluations. The results of these studies are not surprising. Basically, they confirm what leading atmospheric scientists have said for some time: (1) Models are more reliable for estimating longer time-averaged concentrations than for estimating short-term concentrations at specific locations; and (2) the models are reasonably reliable in estimating the magnitude of highest concentrations occurring sometime, somewhere within an area. For example, errors in highest estimated concentrations of ± 10 to 40 percent are found to be typical,[81] i.e., certainly well within the often quoted factor-of-two accuracy that has long been recognized for these models. However, estimates of concentrations that occur at a specific time and site, are poorly correlated with actually observed concentrations and are much less reliable.

As noted above, poor correlations between paired concentrations at fixed stations may be due to "reducible" uncertainties in knowledge of the precise plume location and to unquantified inherent uncertainties. For example, Pasquill[82] estimates that, apart from data input errors, maximum ground-level concentrations at a given hour for a point source in flat terrain could be in error by 50 percent due to these uncertainties. Uncertainty of five to 10 degrees in the measured wind direction, which transports the plume, can result in concentration errors of 20 to 70 percent for a particular time and location, depending on stability and station location. Such uncertainties do not indicate that an estimated concentration does not occur, only that the precise time and locations are in doubt.

10.1.3 Use of Uncertainty in Decision-Making

The accuracy of model estimates varies with the model used, the type of application, and site-specific characteristics. Thus, it is desirable to quantify the accuracy or uncertainty associated with concentration estimates used in decision-making. Communications between modelers and decision-makers must be fostered and further developed. Communications concerning concentration estimates currently exist in most cases, but the communications dealing with the accuracy of models and its meaning to the decision-maker are limited by the lack of a technical basis for quantifying and directly including uncertainty in decisions. Procedures for quantifying and interpreting uncertainty in the practical application of such concepts are only beginning to evolve, much study is still required.[74,75,77]

In all applications of models an effort is encouraged to identify the reliability of the model estimates for that particular area and to determine the magnitude and sources of error associated with the use of the model. The analyst is responsible for recognizing and quantifying limitations in the accuracy, precision and sensitivity of the procedure. Information that might be useful to the decision-maker in recognizing the seriousness of potential air quality violations includes such model accuracy estimates as accuracy of peak predictions, bias, noise, correlation, frequency distribution, spatial extent of high concentration, etc. Both space/time pairing of estimates and measurements and unpaired comparisons are recommended. Emphasis should be on the highest concentrations and the averaging times of the standards or increments of concern. Where possible, confidence intervals about the statistical values should be provided. However, while such information can be provided by the modeler to the decision-maker, it is unclear how this information should be used to make an air pollution control decision. Given a range of possible outcomes, it is easiest and tends to ensure consistency if the decision-maker confines his judgment to use of the "best estimate" provided by the modeler (i.e., the design concentration estimated by a model recommended in this guideline or an alternate model of known accuracy). This is an indication of the practical limitations imposed by current abilities of the technical community.

To improve the basis for decision-making, EPA has developed and is continuing to study procedures for determining the accuracy of models, quantifying the uncertainty, and expressing confidence levels in decisions that are made concerning emissions controls.[83,84] However, work in this area involves "breaking new ground" with slow and sporadic progress likely. As a result, it may be necessary to continue using the "best estimate" until sufficient technical progress has been made to meaningfully implement such concepts dealing with uncertainty.

10.1.4 Evaluation of Models

A number of actions are being taken to ensure that the best model is used correctly for each regulatory application and that a model is not arbitrarily imposed. First, this guideline clearly recommends the most appropriate model be used in each case. Preferred models, based on a number of factors, are identified for many uses. General guidance on using alternatives to the preferred models is also provided. Second, all the models in eight categories (i.e., rural, urban, industrial complex, reactive pollutants, mobile source, complex terrain, visibility and long range transport) that are candidates for inclusion in this guideline are being subjected to a systematic performance evaluation and a peer scientific review.[85] The same data bases are being used to evaluate all models within each of eight categories. Statistical performance measures, including measures of difference (or residuals) such as bias, variance of difference and gross variability of the difference, and measures of correlation such as time, space, and time and space combined as recommended by the AMS Woods Hole Workshop,[11] are being followed. The results of the scientific review are being incorporated in this guideline and will be the basis for future revision.[12, 13] Third, more specific information has been provided for justifying the site specific use of alternative models in the documents "Interim Procedures for Evaluating Air Quality Models",[15] and the "Protocol for Determining the Best Performing Model".[17] Together these documents provide methods that allow a judgment to be made as to what models are most appropriate for a specific application. For the present, performance and the theoretical evaluation of models are being used as an indirect means to quantify one element of uncertainty in air pollution regulatory decisions.

In addition to performance evaluation of models, sensitivity analyses are encouraged since they can provide additional information on the effect of inaccuracies in the data bases and on the uncertainty in model estimates. Sensitivity analyses can aid in determining the effect of inaccuracies of variations or uncertainties in the data bases on the range of likely concentrations. Such information may be used to determine source impact and to evaluate control strategies. Where possible, information from such sensitivity analyses should be made available to the decision-maker with an appropriate interpretation of the effect on the critical concentrations.

10.2 Recommendations

No specific guidance on the consideration of model uncertainty in decision-making is being given at this time. There is incomplete technical information on measures of model uncertainty that are most relevant to the decision-maker. It is not clear how a decisionmaker could use such information, particularly given limitations of the Clean Air Act. As procedures for considering uncertainty develop and become implementable, this guidance will be changed and expanded. For the present, continued use of the "best estimate" is acceptable and is consistent with CAA requirements.

11.0 Regulatory Application of Models

11.1 Discussion

Procedures with respect to the review and analysis of air quality modeling and data analyses in support of SIP revisions, PSD permitting or other regulatory requirements need a certain amount of standardization to ensure consistency in the depth and comprehensiveness of both the review and the analysis itself. This section recommends procedures that permit some degree of standardization while at the same time allowing the flexibility needed to assure the technically best analysis for each regulatory application.

Dispersion model estimates, especially with the support of measured air quality data, are the preferred basis for air quality demonstrations. Nevertheless, there are instances where the performance of recommended dispersion modeling techniques, by comparison with observed air quality data, may be shown to be less than acceptable. Also, there may be no recommended modeling procedure suitable for the situation. In these instances, emission limitations may be established solely on the basis of observed air quality data as would be applied to a modeling analysis. The same care should be given to the analyses of the air quality data as would be applied to a modeling analysis.

The current NAAQS for SO_2 and CO are both stated in terms of a concentration not to be exceeded more than once a year. There is only an annual standard for NO_2 and a quarterly standard for Pb. The PM–10 and ozone standards permit the exceedance of a concentration on an average of not more than once a year; the convention is to average over a 3-year period.[5, 86, 103] This represents a change from a deterministic to a more statistical form of the standard and permits some consideration to be given to unusual circumstances. The NAAQS are subjected to extensive review and possible revision every 5 years.

This section discusses general requirements for concentration estimates and identifies the relationship to emission limits. The following recommendations apply to: (1) Revisions of State Implementation Plans; (2) the review of new sources and the prevention of significant deterioration (PSD); and (3) analyses of the emissions trades ("bubbles").

11.2 *Recommendations*

11.2.1 Analysis Requirements

Every effort should be made by the Regional Office to meet with all parties involved in either a SIP revision or a PSD permit application prior to the start of any work on such a project. During this meeting, a protocol should be established between the preparing and reviewing parties to define the procedures to be followed, the data to be collected, the model to be used, and the analysis of the source and concentration data. An example of requirements for such an effort is contained in the Air Quality Analysis Checklist included here as Appendix C. This checklist suggests the level of detail required to assess the air quality resulting from the proposed action. Special cases may require additional data collection or analysis and this should be determined and agreed upon at this preapplication meeting. The protocol should be written and agreed upon by the parties concerned, although a formal legal document is not intended. Changes in such a protocol are often required as the data collection and analysis progresses. However, the protocol establishes a common understanding of the requirements.

An air quality analysis should begin with a screening model to determine the potential of the proposed source or control strategy to violate the PSD increment or NAAQS. It is recommended that the screening techniques found in "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources"[18] be used for point source analyses. Screening procedures for area source analysis are discussed in "Applying Atmospheric Simulation Models to Air Quality Maintenance Areas".[87] For mobile source impact assessments the

"Guideline for Modeling Carbon Monoxide from Roadway Intersections"[34] is available.

If the concentration estimates from screening techniques indicate that the PSD increment or NAAQS may be approached or exceeded, then a more refined modeling analysis is appropriate and the model user should select a model according to recommendations in sections 4–8. In some instances, no refined technique may be specified in this guide for the situation. The model user is then encouraged to submit a model developed specifically for the case at hand. If that is not possible, a screening technique may supply the needed results.

Regional Offices should require permit applicants to incorporate the pollutant contributions of all sources into their analysis. Where necessary this may include emissions associated with growth in the area of impact of the new or modified source's impact. PSD air quality assessments should consider the amount of the allowable air quality increment that has already been granted to any other sources. Therefore, the most recent source applicant should model the existing or permitted sources in addition to the one currently under consideration. This would permit the use of newly acquired data or improved modeling techniques if such have become available since the last source was permitted. When remodeling, the worst case used in the previous modeling analysis should be one set of conditions modeled in the new analysis. All sources should be modeled for each set of meteorological conditions selected and for all receptor sites used in the previous applications as well as new sites specific to the new source.

11.2.2 Use of Measured Data in Lieu of Model Estimates

Modeling is the preferred method for determining emission limitations for both new and existing sources. When a preferred model is available, model results alone (including background) are sufficient. Monitoring will normally not be accepted as the sole basis for emission limitation determination in flat terrain areas. In some instances when the modeling technique available is only a screening technique, the addition of air quality data to the analysis may lend credence to model results.

There are circumstances where there is no applicable model, and measured data may need to be used. Examples of such situations are: (1) Complex terrain locations; (2) land/water interface areas; and (3) urban locations with a large fraction of particulate emissions from nontraditional sources. However, only in the case of an existing source should monitoring data alone be a basis for emission limits. In addition, the following items should be considered prior to the acceptance of the measured data:

a. Does a monitoring network exist for the pollutants and averaging times of concern;

b. Has the monitoring network been designed to locate points of maximum concentration;

c. Do the monitoring network and the data reduction and storage procedures meet EPA monitoring and quality assurance requirements;

d. Do the data set and the analysis allow impact of the most important individual sources to be identified if more than one source or emission point is involved;

e. Is at least one full year of valid ambient data available; and

f. Can it be demonstrated through the comparison of monitored data with model results that available models are not applicable?

The number of monitors required is a function of the problem being considered. The source configuration, terrain configuration, and meteorological variations all have an impact on number and placement of monitors. Decisions can only be made on a case-by-case basis. The Interim Procedures for Evaluating Air Quality Models[15] should be used in establishing criteria for demonstrating that a model is not applicable.

Sources should obtain approval from the Regional Office or reviewing authority for the monitoring network prior to the start of monitoring. A monitoring protocol agreed to by all concerned parties is highly desirable. The design of the network, the number, type and location of the monitors, the sampling period, averaging time as well as the need for meteorological monitoring or the use of mobile sampling or plume tracking techniques, should all be specified in the protocol and agreed upon prior to start-up of the network.

11.2.3 Emission Limits

11.2.3.1 *Design Concentrations.* Emission limits should be based on concentration estimates for the averaging time that results in the most stringent control requirements. The concentration used in specifying emission limits is called the design value or design concentration and is a sum of the concentration contributed by the source and the background concentration.

To determine the averaging time for the design value, the most restrictive National Ambient Air Quality Standard (NAAQS) should be identified by calculating, for each averaging time, the ratio of the applicable NAAQS (S) minus background (B) to the predicted concentration (P) (i.e., (S–B)/P). The averaging time with the lowest ratio identifies the most restrictive standard. If the annual average is the most restrictive, the highest estimated annual average concentration from one or a number of years of data is the design value. When short term standards are most restrictive, it may be necessary to consider a broader range of concentrations than the highest value. For example, for pollutants such as SO_2, the highest, second-highest concentration is the design value. For pollutants with statistically based NAAQS, the design value is found by determining the more restrictive of: (1) The short-term concentration that is not expected to be exceeded more than once per year over the period specified in the standard, or (2) the long-term concentration that is not expected to exceed the long-term NAAQS. Determination of design values for PM–10 is presented in more detail in the "PM–10 SIP Development Guideline".[103]

When the highest, second-highest concentration is used in assessing potential violations of a short term NAAQS, criteria that are identified in "Guideline for Interpretation of Air Quality Standards"[88] should be followed. This guideline specifies that a violation of a short term standard occurs at a site when the standard is exceeded a second time. Thus, emission limits that protect standards for averaging times of 24 hours or less are appropriately based on the highest, second-highest estimated concentration plus a background concentration which can reasonably be assumed to occur with the concentration.

11.2.3.2 *NAAQS Analyses for New or Modified Sources.* For new or modified sources predicted to have a significant ambient impact[63] and to be locatec in areas designated attainment or unclassifiable for the SO_2, Pb, NO_2, or CO NAAQS, the demonstration as to whether the source will cause or contribute to an air quality violation should be based on: (1) The highest estimated annual average concentration determined from annual averages of individual years; or (2) the highest, second-highest estimated concentration for averaging times of 24-hours or less; and (3) the significance of the spatial and temporal contribution to any modeled violation. For Pb, the highest estimated concentration based on an individual calendar quarter averaging period should be used. Background concentrations should be added to the estimated impact of the source. The most restrictive standard should be used in all cases to assess the threat of an air quality violation. For new or modified sources predicted to have a significant ambient impact[63] in areas designated attainment or unclassifiable for the PM–10 NAAQS, the demonstration of whether or not the source will cause or contribute to an air quality violation should be based on sufficient data to show whether: (1) The projected 24-hour average concentrations will exceed the 24-hour NAAQS more than once per year, on average; (2) the expected (i.e., average) annual mean concentration will exceed the annual NAAQS; and (3) the source contributes significantly, in a temporal and spatial sense, to any modeled violation.

11.2.3.3 *PSD Air Quality Increments and Impacts.* The allowable PSD increments for criteria pollutants are established by regulation and cited in 40 CFR 51.166. These maximum allowable increases in pollutant concentrations may be exceeded once per year at each site, except for the annual increment that may not be exceeded. The highest, second-highest increase in estimated concentrations for the short term averages as determined by a model should be less than or equal to the permitted increment. The modeled annual averages should not exceed the increment.

Screening techniques defined in sections 4 and 5 can sometimes be used to estimate short term incremental concentrations for the first new source that triggers the baseline in a given area. However, when multiple increment-consuming sources are involved in the calculation, the use of a refined model with at least 1 year of on-site or 5 years of off-site NWS data is normally required. In such cases, sequential modeling must demonstrate that the allowable increments are not exceeded temporally and spatially, i.e., for all receptors for each time period

throughout the year(s) (time period means the appropriate PSD averaging time, e.g., 3-hour, 24-hour, etc.).

The PSD regulations require an estimation of the SO_2, particulate matter, and NO_2 impact on any Class I area. Normally, Gaussian models should not be applied at distances greater than can be accommodated by the steady state assumptions inherent in such models. The maximum distance for refined Gaussian model application for regulatory purposes is generally considered to be 50km. Beyond the 50km range, screening techniques may be used to determine if more refined modeling is needed. If refined models are needed, long range transport models should be considered in accordance with section 7.2.6. As previously noted in sections 3 and 7, the need to involve the Federal Land Manager in decisions on potential air quality impacts, particularly in relation to PSD Class I areas, cannot be overemphasized.

11.2.3.4 *Emissions Trading Policy (Bubbles).* EPA's final Emissions Trading Policy, commonly referred to as the "bubble policy," was published in the **Federal Register** in 1986.[89] Principles contained in the policy should be used to evaluate ambient impacts of emission trading activities.

Emission increases and decreases within the bubble should result in ambient air quality equivalence. Two levels of analysis are defined for establishing this equivalence. In a Level I analysis the source configuration and setting must meet certain limitations (defined in the policy) that ensure ambient equivalence; no modeling is required. In a Level II analysis a modeling demonstration of ambient equivalence is required but only the sources involved in the emissions trade are modeled. The resulting ambient estimates of net increases/decreases are compared to a set of significance levels to determine if the bubble can be approved. A Level II analysis requires the use of a refined model and the most recent readily available full year of representative meteorological data. Sequential modeling must demonstrate that the significance levels are met temporally and spatially, i.e., for all receptors for each time period throughout the year (time period means the appropriate NAAQS averaging time, e.g., 3-hour, 24-hour, etc.).

For those bubbles that cannot meet the Level I or Level II requirements, the Emissions Trading Policy allows for a Level III analysis. A Level III analysis, from a modeling standpoint, is generally equivalent to the requirements for a standard SIP revision where all sources (and background) are considered and the estimates are compared to the NAAQS as in section 11.2.3.2.

The Emissions Trading Policy allows States to adopt generic regulations for processing bubbles. The modeling procedures recommended in this guideline apply to such generic regulations. However, an added requirement is that the modeling procedures contained in any generic regulation must be replicable such that there is no doubt as to how each individual bubble will be modeled. In general this means that the models, the data bases and the procedures for applying the model must be defined in the regulation. The consequences of the replicability requirement are that bubbles for sources located in complex terrain and certain industrial sources where judgments must be made on source characterization cannot be handled generically.

12.0 References[a,b]

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[b] Some EPA references, e.g., model user's guides, etc., are periodically revised. Users are referred to the SCRAM BBS [19] to download updates or addenda; see Appendix A of this appendix, "A.0 INTRODUCTION AND AVAILABILITY".

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14.0 Glossary of Terms

Air quality: Ambient pollutant concentrations and their temporal and spatial distribution.

Algorithm: A specific mathematical calculation procedure. A model may contain several algorithms.

Background: Ambient pollutant concentrations due to (1) natural sources, (2) nearby sources other than the one(s) currently under consideration; and (3) unidentified sources.

Calibrate: An objective adjustment using measured air quality data (e.g., an adjustment based on least-squares linear regression).

Calm: For purposes of air quality modeling, calm is used to define the situation when the wind is indeterminate with regard to speed or direction.

Complex Terrain: Terrain exceeding the height of the stack being modeled.

Computer Code: A set of statements that comprise a computer program.

Evaluate: To appraise the performance and accuracy of a model based on a comparison of concentration estimates with observed air quality data.

Fluid Modeling: Modeling conducted in a wind tunnel or water channel to

[1] The documents listed here are major sources of supplemental information on the theory and application of mathematical air quality models

quantitatively evaluate the influence of buildings and/or terrain on pollutant concentrations.

Fugitive Dust: Dust discharged to the atmosphere in an unconfined flow stream such as that from unpaved roads, storage piles and heavy construction operations.

Model: A quantitative or mathematical representation or simulation which attempts to describe the characteristics or relationships of physical events.

Preferred Model: A refined model that is recommended for a specific type of regulatory application.

Receptor: A location at which ambient air quality is measured or estimated.

Receptor Models: Procedures that examine an ambient monitor sample of particulate matter and the conditions of its collection to infer the types or relative mix of sources impacting on it during collection.

Refined Model: An analytical technique that provides a detailed treatment of physical and chemical atmospheric processes and requires detailed and precise input data. Specialized estimates are calculated that are useful for evaluating source impact relative to air quality standards and allowable increments. The estimates are more accurate than those obtained from conservative screening techniques.

Rollback: A simple model that assumes that if emissions from each source affecting a given receptor are decreased by the same percentage, ambient air quality concentrations decrease proportionately.

Screening Technique: A relatively simple analysis technique to determine if a given source is likely to pose a threat to air quality. Concentration estimates from screening techniques are conservative.

Simple Terrain: An area where terrain features are all lower in elevation than the top of the stack of the source.

Appendix A to Appendix W of Part 51—Summaries of Preferred Air Quality Models

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A.0 Introduction and Availability

This appendix summarizes key features of refined air quality models preferred for specific regulatory applications. For each model, information is provided on availability, approximate cost in 1990, regulatory use, data input, output format and options, simulation of atmospheric physics, and accuracy. These models may be used without a formal demonstration of applicability provided they satisfy the recommendations for regulatory use; not all options in the models are necessarily recommended for regulatory use.

Many of these models have been subjected to a performance evaluation using comparisons with observed air quality data. A summary of such comparisons for models contained in this appendix is included in "A Survey of Statistical Measures of Model Performance and Accuracy for Several Air Quality Models," EPA–450/4–83–001. Where possible, several of the models contained herein have been subjected to evaluation exercises, including (1) statistical performance tests recommended by the American Meteorological Society and (2) peer scientific reviews. The models in this appendix have been selected on the basis of the results of the model evaluations, experience with previous use, familiarity of the model to various air quality programs, and the costs and resource requirements for use.

The Availability statement for models in this Appendix that refers to the User's Network for Applied Modeling of Air Pollution (UNAMAP) should be ignored since UNAMAP is no longer operational. However, all models and user's documentation in this appendix are available from: Computer Products, National Technical Information Service (NTIS), U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

In addition, model codes and selected, abridged user's guides are available from the Support Center for Regulatory Air Models Bulletin Board System [10] (SCRAM BBS), telephone (919) 541–5742. The SCRAM BBS is an electronic bulletin board system designed to be user friendly and accessible from anywhere in the country. Model users with personal computers are encouraged to use the SCRAM BBS to download current model codes and text files.

A.1 Buoyant Line and Point Source Dispersion Model (BLP)

Reference

Schulman, Lloyd L., and Joseph S. Scire, 1980. Buoyant Line and Point Source (BLP) Dispersion Model User's Guide. Document P–7304B. Environmental Research and Technology, Inc., Concord, MA. (NTIS No. PB 81–164642)

Availability

This model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

Abstract:

BLP is a Gaussian plume dispersion model designed to handle unique modeling problems associated with aluminum reduction plants, and other industrial sources where plume rise and downwash effects from stationary line sources are important.

a. *Recommendations for Regulatory Use*

The BLP model is appropriate for the following applications:

Aluminum reduction plants which contain buoyant, elevated line sources;

Rural areas;

Transport distances less than 50 kilometers;

Simple terrain; and

One hour to one year averaging times.

The following options should be selected for regulatory applications:

Rural (IRU=1) mixing height option;

Default (no selection) for plume rise wind shear (LSHEAR), transitional point source plume rise (LTRANS), vertical potential temperature gradient (DTHTA), vertical wind speed power law profile exponents (PEXP), maximum variation in number of stability classes per hour (IDELS), pollutant decay (DECFAC), the constant in Briggs' stable plume rise equation (CONST2), constant in Briggs' neutral plume rise equation (CONST3), convergence criterion for the line source calculations (CRIT), and maximum iterations allowed for line source calculations (MAXIT); and

Terrain option (TERAN) set equal to 0.0, 0.0, 0.0, 0.0, 0.0, 0.0.

For other applications, BLP can be used if it can be demonstrated to give the same estimates as a recommended model for the same application, and will subsequently be executed in that mode.

BLP can be used on a case-by-case basis with specific options not available in a recommended model if it can be demonstrated, using the criteria in section 3.2, that the model is more appropriate for a specific application.

b. *Input Requirements*

Source data: Point sources require stack location, elevation of stack base, physical stack height, stack inside diameter, stack gas exit velocity, stack gas exit temperature, and pollutant emission rate. Line sources require coordinates of the end points of the line, release height, emission rate, average line source width, average building width, average spacing between buildings, and average line source buoyancy parameter.

Meteorological data: Hourly surface weather data from punched cards or from the preprocessor program RAMMET which provides hourly stability class, wind direction, wind speed, temperature, and mixing height.

Receptor data: Locations and elevations of receptors, or location and size of receptor grid or request automatically generated receptor grid.

c. *Output*

Printed output (from a separate post-processor program) includes:

Total concentration or, optionally, source contribution analysis; monthly and annual frequency distributions for 1-, 3-, and 24-hour average concentrations; tables of 1-, 3-, and 24-hour average concentrations at each receptor; table of the annual (or length of run) average concentrations at each receptor;

Five highest 1-, 3-, and 24-hour average concentrations at each receptor; and

Fifty highest 1-, 3-, and 24-hour concentrations over the receptor field.

d. *Type of Model*

BLP is a gaussian plume model.

e. *Pollutant Types*

BLP may be used to model primary pollutants. This model does not treat settling and deposition.

f. *Source-Receptor Relationship*

BLP treats up to 50 point sources, 10 parallel line sources, and 100 receptors arbitrarily located.

User-input topographic elevation is applied for each stack and each receptor.

g. *Plume Behavior*

BLP uses plume rise formulas of Schulman and Scire (1980).

Vertical potential temperature gradients of 0.02 Kelvin per meter for E stability and 0.035 Kelvin per meter are used for stable plume rise calculations. An option for user input values is included.

Transitional rise is used for line sources.

Option to suppress the use of transitional plume rise for point sources is included.

The building downwash algorithm of Schulman and Scire (1980) is used.

h. *Horizontal Winds*

Constant, uniform (steady-state) wind is assumed for an hour.

Straight line plume transport is assumed to all downwind distances.

Wind speeds profile exponents of 0.10, 0.15, 0.20, 0.25, 0.30, and 0.30 are used for stability classes A through F, respectively. An option for userdefined values and an option to suppress the use of the wind speed profile feature are included.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Rural dispersion coefficients are from Turner (1969), with no adjustment made for variations in surface roughness or averaging time.

Six stability classes are used.

k. *Vertical Dispersion*

Rural dispersion coefficients are from Turner (1969), with no adjustment made for variations in surface roughness.

Six stability classes are used.

Mixing height is accounted for with multiple reflections until the vertical plume standard deviation equals 1.6 times the mixing height; uniform mixing is assumed beyond that point.

Perfect reflection at the ground is assumed.

l. *Chemical Transformation*

Chemical transformations are treated using linear decay. Decay rate is input by the user.

m. *Physical Removal*

Physical removal is not explicitly treated.

n. *Evaluation Studies*

Schulman, L.L., and J.S. Scire, 1980. Buoyant Line and Point Source (BLP) Dispersion Model User's Guide, P–7304B. Environmental Research and Technology, Inc., Concord, MA.

Scire, J.S., and L.L. Schulman, 1981. Evaluation of the BLP and ISC Models with SF_6 Tracer Data and SO_2 Measurements at Aluminum Reduction Plants. APCA Specialty Conference on Dispersion Modeling for Complex Sources, St. Louis, MO.

A.2 CALINE3

Reference

Benson, Paul E, 1979. CALINE3—A Versatile Dispersion Model for Predicting Air Pollutant Levels Near Highways and Arterial Streets. Interim Report, Report Number FHWA/CA/TL–79/23. Federal Highway Administration, Washington, DC. (NTIS No. PB 80–220841)

Availability

The CALINE3 model computer tape is available from NTIS as PB 80–220833. The model is also available from the California Department of Transportation (manual free of charge and approximately $50 for the computer tape). Requests should be directed to: Mr. Marlin Beckwith, Chief, Office of Computer Systems, California Department of Transportation, 1120 N. Street, Sacramento, CA 95814.

Abstract

CALINE3 can be used to estimate the concentrations of nonreactive pollutants from highway traffic. This steady-state Gaussian model can be applied to determine air pollution concentrations at receptor locations downwind of "at-grade," "fill," "bridge," and "cut section" highways located in relatively uncomplicated terrain. The model is applicable for any wind direction, highway orientation, and receptor location. The model has adjustments for averaging time and surface roughness, and can handle up to 20 links and 20 receptors. It also contains an algorithm for deposition and settling velocity so that particulate concentrations can be predicted.

a. *Recommendations for Regulatory Use*

CALINE–3 is appropriate for the following applications:

Highway (line) sources;

Urban or rural areas;

Simple terrain;

Transport distances less than 50 kilometers; and

One-hour to 24-hour averaging times.

b. *Input Requirements*

Source data: Up to 20 highway links classed as "at-grade," "fill," "bridge," or "depressed"; coordinates of link end points; traffic volume; emission factor; source height; and mixing zone width.

Meteorological data: Wind speed, wind angle (measured in degrees clockwise from the Y axis), stability class, mixing height, ambient (background to the highway) concentration of pollutant.

Receptor data: Coordinates and height above ground for each receptor. c.

Output

Printed output includes:

Concentration at each receptor for the specified meteorological condition.

d. *Type of Model*

CALINE–3 is a Gaussian plume model.

e. *Pollutant Types*

CALINE–3 may be used to model primary pollutants.

f. *Source-Receptor Relationship*

Up to 20 highway links are treated.

CALINE–3 applies user input location and emission rate for each link. User-input receptor locations are applied.

g. *Plume Behavior*

Plume rise is not treated.

h. *Horizontal Winds*

User-input hourly wind speed and direction are applied.

Constant, uniform (steady-state) wind is assumed for an hour.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Six stability classes are used.

Rural dispersion coefficients from Turner (1969) are used, with adjustment for roughness length and averaging time.

Initial traffic-induced dispersion is handled implicitly by plume size parameters.

k. *Vertical Dispersion*

Six stability classes are used.

Empirical dispersion coefficients from Benson (1979) are used including an adjustment for roughness length.

Initial traffic-induced dispersion is handled implicitly by plume size parameters.

Adjustment for averaging time is included.

l. *Chemical Transformation*

Not treated.

m. *Physical Removal*

Optional deposition calculations are included.

n. *Evaluation Studies*

Bemis, G. R. et al., 1977. Air Pollution and Roadway Location, Design, and Operation—Project Overview. FHWA–CA–TL–7080–77–25, Federal Highway Administration, Washington, DC.

Cadle, S. H. et al., 1976. Results of the General Motors Sulfate Dispersion Experiment, GMR–2107. General Motors Research Laboratories, Warren, MI.

Dabberdt, W. F., 1975. Studies of Air Quality on and Near Highways, Project 2761. Stanford Research Institute, Menlo Park, CA.

A.3 Climatological Dispersion Model (CDM 2.0)

References

Irwin, J. S., T. Chico, and J. Catalano, 1985. CDM 2.0-Climatological Dispersion Model—User's Guide. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS No. PB 86–136546)

Availability

This model is available as part of UNAMAP (Version 6). The computer code is

available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

Abstract

CDM is a climatological steady-state Gaussian plume model for determining long-term (seasonal or annual) arithmetic average pollutant concentrations at any ground-level receptor in an urban area.

a. *Recommendations for Regulatory Use*

CDM is appropriate for the following applications:

Point and area sources;

Urban areas;

Flat terrain;

Transport distances less than 50 kilometers;

Long term averages over one month to one year or longer.

The following option should be selected for regulatory applications:

Set the regulatory "default option" (NDEF=1) which automatically selects stack tip downwash, final plume rise, buoyancy-induced dispersion (BID), and the appropriate wind profile exponents.

Enter "0" for pollutant half-life for all pollutants except for SO_2 in an urban setting. This entry results in no decay (infinite half-life) being calculated. For SO_2 in an urban setting, the pollutant half-life (in hours) should be set to 4.0.

b. *Input Requirements*

Source data: Location, average emissions rates and heights of emissions for point and area sources. Point source data requirements also include stack gas temperature, stack gas exit velocity, and stack inside diameter for plume rise calculations for point sources.

Meteorological data: Stability wind rose (STAR deck day/night version), average mixing height and wind speed in each stability category, and average air temperature.

Receptor data: Cartesian coordinates of each receptor.

c. *Output*

Printed output includes:

Average concentrations for the period of the stability wind rose data (arithmetic mean only) at each receptor, and

Optional point and area concentration rose for each receptor.

d. *Type of Model*

CDM is a climatological Gaussian plume model.

e. *Pollutant Types*

CDM may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

CDM applies user-specified locations for all point sources and receptors.

Area sources are input as multiples of a user-defined unit area source grid size.

User specified release heights are applied for individual point sources and the area source grid.

Actual separation between each source-receptor pair is used.

The user may select a single height at or above ground level that applies to all receptors.

No terrain differences between source and receptor are treated.

g. *Plume Behavior*

CDM uses Briggs (1969, 1971, 1975) plume rise equations. Optionally a plume rise-wind speed product may be input for each point source.

Stack tip downwash equation from Briggs (1974) is preferred for regulatory use. The Bjorklund and Bowers (1982) equation is also included.

No plume rise is calculated for area sources.

Does not treat fumigation or building downwash.

h. *Horizontal Winds*

Wind data are input as a stability wind rose (joint frequency distribution of 16 wind directions, 6 wind classes, and 5 stability classes).

Wind speed profile exponents for the urban case (EPA, 1980) are used, assuming the anemometer height is at 10.0 meters.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Pollutants are assumed evenly distributed across a 22.5 or 10.0 degree sector.

k. *Vertical Dispersion*

There are seven vertical dispersion parameter schemes, but the following is recommended for regulatory applications:

- Briggs-urban (Gifford, 1976).

Mixing height has no effect until dispersion coefficient equals 0.8 times the mixing height; uniform vertical mixing is assumed beyond that point.

Buoyancy-induced disperion (Pasquill, 1976) is included as an option. Perfect reflection is assumed at the ground.

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Half-life is input by the user.

m. *Physical Removal*

Physical removal is not explicitly treated.

n. *Evaluation Studies*

Irwin, J. S., and T. M. Brown, 1985. A Sensitivity Analysis of the Treatment of Area Sources by the Climatological Dispersion Model. *Journal of Air Pollution Control Association*, 35: 359–364.

Londergan, R., D. Minott, D. Wachter and R. Fizz, 1983. Evaluation of Urban Air Quality Simulation Models, EPA Publication No. EPA–450/4–83–020. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Busse, A. D. and J. K. Zimmerman, 1973. User's Guide for the Climatological Dispersion Model—Appendix E. EPA Publication No. EPA/R4–73–024. Office of Research and Development, Research Triangle Park, NC.

Zimmerman, J. R., 1971. Some Preliminary Results of Modeling from the Air Pollution Study of Ankara, Turkey, Proceedings of the Second Meeting of the Expert Panel on Air Pollution Modeling, NATO Committee on the Challenges of Modern Society, Paris, France.

Zimmerman, J. R., 1972. The NATO/CCMS Air Pollution Study of St. Louis, Missouri. Presented at the Third Meeting of the Expert Panel on Air Pollution Modeling, NATO Committee on the Challenges of Modern Society, Paris, France.

A.4 Gaussian-Plume Multiple Source Air Quality Algorithm (RAM)

Reference

Turner, D. B., and J. H. Novak, 1978. User's Guide for RAM. Publication No. EPA–600/8–78–016, Vol. a and b. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS Nos. PB 294791 and PB 294792)

Catalano, J. A., D. B. Turner, and H. Novak. 1987. User's Guide for RAM— Second Edition. U.S. Environmental Protection Agency, Research Triangle Park, NC. (Distributed as part of UNAMAP, Version 6), Documentation)

Availability

This model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

Abstract

RAM is a steady-state Gaussian plume model for estimating concentrations of relatively stable pollutants, for averaging times from an hour to a day, from point and area sources in a rural or urban setting. Level terrain is assumed. Calculations are performed for each hour.

a. *Recommendations for Regulatory Use*

RAM is appropriate for the following applications:

Point and area sources;

Urban areas;

Flat terrain;

Transport distances less than 50 kilometers; and

One hour to one year averaging times.

The following options should be selected for regulatory applications:

Set the regulatory "default option" to automatically select stack tip downwash, final plume rise, buoyancy-induced dispersion (BID), the new treatment for calms, the appropriate wind profile exponents, and the appropriate value for pollutant half-life.

b. *Input Requirements*

Source data: Point sources require location, emission rate, physical stack height, stack gas exit velocity, stack inside diameter and stack gas temperature. Area sources require location, size, emission rate, and height of emissions.

Meteorological data: Hourly surface weather data from the preprocessor program RAMMET which provides hourly stability class, wind direction, wind speed, temperature, and mixing height. Actual anemometer height (a single value) is also required.

Receptor data: Coordinates of each receptor. Options for automatic placement of receptors near expected concentration maxima, and a gridded receptor array are included.

c. *Output*

Printed output optionally includes:

One to 24-hour and annual average concentrations at each receptor,

Limited individual source contribution list, and

Highest through fifth highest concentrations at each receptor for period, with the highest and high, second-high values flagged.

d. *Type of Model*

RAM is a Gaussian plume model.

e. *Pollutant Types*

RAM may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

RAM applies user-specified locations for all point sources and receptors.

Area sources are input as multiples of a user-defined unit area source grid size.

User specified stack heights are applied for individual point sources.

Up to 3 effective release heights may be specified for the area sources. Area source release heights are assumed to be appropriate for a 5 meter per second wind and to be inversely proportional to wind speed.

Actual separation between each source-receptor pair is used.

All receptors are assumed to be at the same height at or above ground level.

No terrain differences between source and receptor are accounted for.

g. *Plume Behavior*

RAM uses Briggs (1969, 1971, 1975) plume rise equations for final rise.

Stack tip downwash equation from Briggs (1974) is used.

A user supplied fraction of the area source height is treated as the physical height. The remainder is assumed to be plume rise for a 5 meter per second wind speed, and to be inversely proportional to wind speed.

Fumigation and building downwash are not treated.

h. *Horizontal Winds*

Constant, uniform (steady state) wind is assumed for an hour.

Straight line plume transport is assumed to all downwind distances.

Separate wind speed profile exponents (EPA, 1980) for urban cases are used.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Urban dispersion coefficients from Briggs (Gifford, 1976) are used.

Buoyancy-induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

k. *Vertical Dispersion*

Urban dispersion coefficients from Briggs (Gifford, 1976) are used.

Buoyancy-induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

Mixing height is accounted for with multiple reflections until the vertical plume standard deviation equals 1.6 times the mixing height; uniform vertical mixing is assumed beyond that point.

Perfect reflection is assumed at the ground.

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Half-life is input by the user.

m. *Physical Removal*

Physical removal is not explicitly treated.

n. *Evaluation Studies*

Ellis, H., P. Lou, and G. Dalzell, 1980. Comparison Study of Measured and Predicted Concentrations with the RAM Model at Two Power Plants Along Lake Erie, Second Joint Conference on Applications of Air Pollution Meteorology, New Orleans, LA.

Environmental Research and Technology, 1980. SO_2 Monitoring and RAM (Urban) Model Comparison Study in Summit County, Ohio. Document P–3618–152, Environmental Research & Technology, Inc., Concord, MA.

Guldberg, P. H., and C. W. Kern, 1978. A Comparison Validation of the RAM and PTMTP Models for Short-Term Concentrations in Two Urban Areas. *Journal of Air Pollution Control Association*, 28: 907–910.

Hodanbosi, R. R., and L. K. Peters, 1981. Evaluation of RAM Model for Cleveland, Ohio. *Journal of Air Pollution Control Association*, 31: 253–255.

Kennedy, K. H., R. D. Siegel, and M. P. Steinberg, 1981. Case-Specific Evaluation of the RAM Atmospheric Dispersion Model in an Urban Area, 74th Annual Meeting of the American Institute of Chemical Engineers, New Orleans, LA.

Kummier, R. H., B. Cho, G. Roginski, R. Sinha and A. Greenburg, 1979. A Comparative Validation of the RAM and Modified SAI Models for Short-Term SO_2 Concentrations in Detroit. *Journal of Air Pollution Control Association*, 29: 720–723.

Londergan, R. J., N. E. Bowne, D. R. Murray, H. Borenstein, and J. Mangano, 1980. An Evaluation of Short-Term Air Quality Models Using Tracer Study Data, Report No. 4333, American Petroleum Institute, Washington, D.C.

Morgenstern, P., M. J. Geraghty, and A. McKnight, 1979. A Comparative Study of the RAM (Urban) and RAMR (Rural) Models for Short-term SO_2 Concentrations in Metropolitan Indianapolis. 72nd Annual Meeting of the Air Pollution Control Association, Cincinnati, OH.

Ruff, R. E., 1980. Evaluation of the RAM Using the RAPS Data Base, Contract 68–02–2770, SRI International, Menlo Park, CA.

Londergan, R., D. Minott, D. Wackter, and R. Fizz, 1983. Evaluation of Urban Air Quality Simulation Models. EPA Publication No. EPA–450/4–83–020. U.S. Environmental Protection Agency, Research Triangle Park, NC.

A.5 Industrial Source Complex Model (ISC2)

Reference

Environmental Protection Agency, 1992. User's Guide for the Industrial Source Complex (ISC2) Dispersion Models, Volumes 1, 2, and 3. EPA Publication Nos. EPA–450/4–92–008a–c. Environmental Protection Agency, Research Triangle Park, NC. (NTIS Nos. PB 92–232461, PB 92–232453, and PB 92–232479, respectively)

Availability

The model code is available on the Support Center for Regulatory Air Models Bulletin Board System and also from the National Technical Information Service (see page A–1).

Abstract

The ISC2 model is a steady-state Gaussian plume model which can be used to assess pollutant concentrations from a wide variety of sources associated with an industrial source complex. This model can account for the following: Settling and dry deposition of particles; downwash; area, line and volume sources; plume rise as a function of downwind distance; separation of point sources; and limited terrain adjustment. It operates in both long-term and short-term modes.

a. *Recommendations for Regulatory Use*

ISC2 is appropriate for the following applications:

- Industrial source complexes;
- Rural or urban areas;
- Flat or rolling terrain;
- Transport distances less than 50 kilometers;
- 1-hour to annual averaging times; and
- Continuous toxic air emissions.

The following options should be selected for regulatory applications:

For short term or long term modeling, set the regulatory "default option"; i.e., use the keyword *DFAULT*, which automatically selects stack tip downwash, final plume rise, buoyancy induced dispersion (BID), the vertical potential temperature gradient, a treatment for calms, the appropriate wind profile exponents, the appropriate value for pollutant half-life, and a revised building wake effects algorithm; set the "rural option" (use the keyword *RURAL*) or "urban option" (use the keyword *URBAN*); and set the "concentration option" (use the keyword *CONC*).

b. *Input Requirements*

Source data: Location, emission rate, physical stack height, stack gas exit velocity, stack inside diameter, and stack gas temperature. Optional inputs include source elevation, building dimensions, particle size distribution with corresponding settling velocities, and surface reflection coefficients.

Meteorological data: ISCST2 requires hourly surface weather data from the preprocessor program RAMMET, which provides hourly stability class, wind direction, wind speed, temperature, and mixing height. For ISCLT2, input includes stability wind rose (STAR deck), average afternoon mixing height, average morning mixing height, and average air temperature.

Receptor data: coordinates and optional ground elevation for each receptor.

c. *Output*

Printed output options include:

- Program control parameters, source data, and receptor data;
- Tables of hourly meteorological data for each specified day;
- "N"-day average concentration or total deposition calculated at each receptor for any desired source combinations;
- Concentration or deposition values calculated for any desired source combinations at all receptors for any specified day or time period within the day;
- Tables of highest and second highest concentration or deposition values calculated at each receptor for each specified time period during a(n) "N"-day period for any desired source combinations, and tables of the maximum 50 concentration or deposition values calculated for any desired source combinations for each specified time period.

d. *Type of Model*

ISC2 is a Gaussian plume model.

e. *Pollutant Types*

ISC2 may be used to model primary pollutants and continuous releases of toxic and hazardous waste pollutants. Settling and deposition are treated.

f. *Source-Receptor Relationships*

ISC2 applies user-specified locations for point, line, area and volume sources, and user-specified receptor locations or receptor rings.

User input topographic evaluation for each receptor is used. Elevations above stack top are reduced to the stack top elevation, i.e., "terrain chopping".

User input height above ground level may be used when necessary to simulate impact at elevated or "flag pole" receptors, e.g., on buildings.

Actual separation between each source-receptor pair is used.

g. *Plume Behavior*

ISC2 uses Briggs (1969, 1971, 1975) plume rise equations for final rise.

Stack tip downwash equation from Briggs (1974) is used.

Revised building wake effects algorithm is used. For stacks higher than building height plus one-half the lesser of the building height or building width, the building wake algorithm of Huber and Snyder (1976) is used. For lower stacks, the building wake algorithm of Schulman and Scire (Schulman and Hanna, 1986) is used, but stack tip downwash and BID are not used.

For rolling terrain (terrain not above stack height), plume centerline is horizontal at height of final rise above source.

Fumigation is not treated.

h. *Horizontal Winds*

Constant, uniform (steady-state) wind is assumed for each hour.

Straight line plume transport is assumed to all downwind distances.

Separate wind speed profile exponents (EPA, 1980) for both rural and urban cases are used.

An optional treatment for calm winds is included for short term modeling.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Rural dispersion coefficients from Turner (1969) are used, with no adjustments for surface roughness or averaging time.

Urban dispersion coefficients from Briggs (Gifford, 1976) are used.

Buoyancy induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

k. *Vertical Dispersion*

Rural dispersion coefficients from Turner (1969) are used, with no adjustments for surface roughness.

Urban dispersion coefficients from Briggs (Gifford, 1976) are used.

Buoyancy induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

Mixing height is accounted for with multiple reflections until the vertical plume standard deviation equals 1.6 times the mixing height; uniform vertical mixing is assumed beyond that point.

Perfect reflection is assumed at the ground.

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Time constant is input by the user.

m. *Physical Removal*

Settling and dry deposition of particulates are treated.

n. *Evaluation Studies*

Bowers, J. F., and A. J. Anderson, 1981. An Evaluation Study for the Industrial Source Complex (ISC) Dispersion Model, EPA Publication No. EPA–450/4–81–002. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Bowers, J. F., A. J. Anderson, and W. R. Hargraves, 1982. Tests of the Industrial Source Complex (ISC) Dispersion Model at the Armco Middletown, Ohio Steel Mill, EPA Publication No. EPA–450/4–82–006. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Scire, J. S., and L. L. Schulman, 1981. Evaluation of the BLP and ISC Models with SF_6 Tracer Data and SO_2 Measurements at Aluminum Reduction Plants. Air Pollution Control Association Specialty Conference on Dispersion Modeling for Complex Sources, St. Louis, MO.

Schulman, L. L., and S. R. Hanna, 1986. Evaluation of Downwash Modification to the Industrial Source Complex Model. Journal of the Air Pollution Control Association, 36: 258–264.

A.6 Multiple Point Gaussian Dispersion Algorithm With Terrain Adjustment (MPTER)

Reference

Pierce, Thomas D. and D. Bruce Turner, 1980. User's Guide for MPTER. EPA Publication No. EPA–600/8–80–016. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS No. PB 80–197361)

Chico, T. and J. A. Catalano, 1986. Addendum to the User's Guide for MPTER. U.S. Environmental Protection Agency. Research Triangle Park, NC 27711. (Distributed as part of UNAMAP. Version 6, Documentation)

Availability

This model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

Abstract

MPTER is a Multiple Point Source Algorithm. This algorithm is useful for estimating air quality concentrations of relatively non-reactive pollutants. Hourly estimates are made using the Gaussian steady state model.

a. *Recommendations for Regulatory Use*

MPTER is appropriate for the following applications:

Point sources;

Rural or urban areas;

Flat or rolling terrain (no terrain above stack height);

Transport distances less than 50 kilometers; and

One hour to one year averaging times.

The following options should be selected for regulatory applications:

Set the regulatory "default option" (IOPT(25)=1) to automatically select stack tip downwash, final plume rise, buoyancy-induced dispersion (BID), the new treatment for calms, and the appropriate wind profile exponents, and the appropriate value for pollutant half-life.

b. *Input Requirements*

Source data: Location, emission rate, physical stack height, stack gas exit velocity, stack inside diameter, stack gas temperature, and optional ground level elevation.

Meteorological data: hourly surface weather data from the preprocessor program RAMMET which provides hourly stability class, wind direction, wind speed, temperature, and mixing height. Actual anemometer height (a single value) is also required.

Receptor data: coordinates and optional ground elevation for each receptor.

c. *Output*

Printed output includes:

One to 24-hour and annual average concentrations at each receptor;

Highest through fifth highest concentrations at each receptor for period, with the highest and high, second-high values flagged; and

Limited source contribution table.

d. *Type of Model*

MPTER is a Gaussian plume model.

e. *Pollutant Types*

MPTER may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

MPTER applies user-specified locations of point sources and receptors.

User input stack height and source characteristics for each source are used.

User input topographic elevation for each receptor is used.

g. *Plume Behavior*

MPTER uses Briggs (1969, 1971, 1975) plume rise equations for final rise. Stack tip downwash equation from Briggs (1974) is used.

For rolling terrain (terrain not above stack height), plume centerline is horizontal at height of final rise above the source.

Fumigation and building downwash are not treated.

h. *Horizontal Winds*

Constant, uniform (steady-state) wind is assumed for an hour.

Straight line plume transport is assumed to all downwind distances.

Separate wind speed profile exponents (EPA, 1980) for both rural and urban cases are used.

i. *Vertical Wind Speed*

Vertical speed is assumed equal to zero.

j. *Horizontal Dispersion*

Rural dispersion coefficients from Turner (1969) are used with no adjustments made for variations in surface roughness or averaging times.

Urban dispersion coefficients from Briggs (Gifford, 1976) are used. Buoyancy-induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

k. *Vertical Dispersion*

Rural dispersion coefficients from Turner (1969) are used, with no adjustments made for variations in surface roughness.

Urban dispersion coefficients from Briggs (Gifford, 1976) are used.

Buoyancy-induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

Mixing height is accounted for with multiple reflections until the vertical plume standard deviation equals 1.6 times the mixing height; uniform vertical mixing is assumed beyond that point.

Perfect reflection is assumed at the ground.

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Half-life is input by the user.

m. *Physical Removal*

Physical removal is not explicitly treated.

n. *Evaluation Studies*

No specific studies for MPTER because regulatory editions of CRSTER and MPTER are equivalent. Studies for CRSTER are relevant to MPTER as well (See page A–32).

A.7 Single Source (CRSTER) Model

Reference

Environmental Protection Agency, 1977. User's Manual for Single Source (CRSTER) Model. EPA Publication No. EPA–450/277–013. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS No. PB 271360)

Catalano, J.A., 1986. Single Source (CRSTER) Model. Addendum to the User's Manual. U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. (Distributed as part of UNAMAP, Version 6, Documentation)

Availability

This model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

Abstract

CRSTER is a steady state, Gaussian dispersion model designed to calculate concentrations from point sources at a single location in either a rural or urban setting. Highest and high-second high concentrations are calculated at each receptor for 1-hour, 3-hour, 24-hour, and annual averaging time.

a. *Recommendations for Regulatory Use*

CRSTER is appropriate for the following applications:

Single point sources;

Rural or urban areas;

Transport distances less than 50 kilometers; and

Flat or rolling terrain (no terrain above stack height).

The following options should be selected for regulatory applications:

Set the regulatory "default option" which automatically selects stack tip downwash, final plume rise, buoyancy-induced dispersion (BID), the new treatment for calms, and the appropriate wind profile exponents, and the appropriate value for pollutant half-life.

b. *Input Requirements*

Source data: Emission rate, physical stack height, stack gas exit velocity, stack inside diameter, and stack gas temperature.

Meteorological data: Hourly surface weather data from the preprocessor program RAMMET. Preprocessor output includes hourly stability class wind direction, wind speed, temperature, and mixing height. Actual anemometer height (a single value) is also required.

Receptor data: Require distance of each of the five receptor rings.

c. *Output*

Printed output includes:

Highest and second highest concentrations for the year at each receptor for averaging times of 1-, 3-, and 24 hours, plus a user-selected averaging time which may be 2, 4, 6, 8, or 12 hours;

Annual arithmetic average at each receptor;

For each day, the highest 1-hour and 24-hour concentrations over the receptor field; and

Option for source contributions to concentrations at selected receptors.

d. *Type of Model*

CRSTER is a Gaussian plume model.

e. *Pollutant Types*

CRSTER may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

CRSTER treats up to 19 point sources, no area sources.

All point sources are assumed collocated.

User input stack height is used for each source.

User input topographic elevation is used for each receptor, but must be below top of stack or program will terminate execution.

Receptors are assumed at ground level.

g. *Plume Behavior*

CRSTER uses Briggs (1969, 1971, 1972) plume rise equations for final rise.

Stack tip downwash equation from Briggs (1974) is used.

For rolling terrain (terrain not above stack height), plume centerline is horizontal at height of final rise above the source.

Fumigation and building downwash are not treated.

h. *Horizontal Winds*

Constant, uniform (steady-state) wind is assumed for an hour.

Straight line plume transport is assumed to all downwind distances.

Separate set of wind speed profile exponents (EPA, 1980) for both rural and urban cases are used.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Rural dispersion coefficients from Turner (1969) are used in CRSTER with no adjustments made for variations in surface roughness or averaging times.

Urban dispersion coefficients from Briggs (Gifford, 1976) are used. Buoyancy-induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

k. *Vertical Dispersion*

Rural dispersion coefficients from Turner (1969) are used with no adjustments made for surface roughness.

Urban dispersion coefficients from Briggs (Gifford, 1975) are used. Buoyancy-induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

Mixing height is accounted for with multiple reflections until the vertical plume standard deviation equals 1.6 times the mixing height; uniform mixing is assumed beyond that point.

Perfect reflection is assumed at the ground.

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Half-life is input by the user.

m. *Physical Removal*

Physical removal is not explicitly treated.

n. *Evaluation Studies*

Klug, W., 1974. Dispersion from Tall Stacks. Fifth NATO/CCMS International Technical Meeting on Air Pollution Modeling, Denmark.

Londergan, R. J., N. E. Bowne, D. R. Murray, H. Borenstein, and J. Mangano, 1980. An Evaluation of Short-Term Air Quality Models Using Tracer Study Data, Report No. 4333. American Petroleum Institute, Washington, DC.

Mills, M. T., R. Caiazza, D. D. Hergert, and D. A. Lynn, 1981. Evaluation of Point Source Dispersion Models. EPA Publication No. EPA–450/4–81–032. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Mills, M. T., and F. A. Record, 1975. Comprehensive Analysis of Time Concentration Relationships and the Validation of a Single Source Dispersion Model. EPA Publication No. EPA–450/3–75–083. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Mills, M. T., and R. W. Stern, 1975. Model Validation and Time-Concentration Analysis of Three Power Plants. EPA Publication No. EPA–450/376–002. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Londergan, R., D. Minott, D. Wackter, T. Kincaid, and B. Bonitata, 1983. Evaluation of Rural Air Quality Simulation Models. EPA Publication No. EPA–450/4–83–033. U.S. Environmental Protection Agency, Research Triangle Park, NC.

TRC-Environmental Consultants, Inc., 1983. Overview, Results, and Conclusions for the EPRI Plume Model Validation and Development Project: Plains Site, EPRI EA–3074. Electric Power Research Institute, Palo Alto, CA.

A.8 Urban Airshed Model (UAM)

References

Environmental Protection Agency, 1990. User's Guide for the Urban Airshed Model, Volumes I–VIII. EPA Publication Nos. EPA–450/4–90–007a–c, d(R), e–g; EPA–454/B–93–004, respectively. U.S. Environmental Protection Agency, Research Triangle Park, NC (NTIS Nos. PB 91–131227, PB 91–131235, PB 91–131243, PB 93–122380, PB 91–131268, PB 92–145382, and PB 92–224849, respectively, for Vols. I–VII).

Availability

The model code is available on the Support Center for Regulatory Air Models Bulletin Board System and also from the National Technical Information Service (see page A–1).

Abstract

UAM is an urban scale, three dimensional, grid type numerical simulation model. The model incorporates a condensed photochemical kinetics mechanism for urban atmospheres. The UAM is designed for computing ozone (O_3) concentrations under short-term, episodic conditions lasting one or two days resulting from emissions of oxides of nitrogen (NO_X), volatile organic compounds (VOC), and carbon monoxide (CO). The model treats urban VOC emissions as their carbon-bond surrogates.

a. *Recommendations for Regulatory Use*

UAM is appropriate for the following applications: Urban areas having significant ozone attainment problems and one hour averaging times.

UAM has many options but no specific recommendations can be made at this time on all options. The reviewing agency should be consulted on selection of options to be used in regulatory applications.

b. *Input Requirements*

Source data: Gridded, hourly emissions of PAR, OLE, ETH, XYL, TOL, ALD2, FORM, ISOR, ETOTH, MEOH, CO, NO, and NO_2 for low-level sources. For major elevated point sources, hourly emissions, stack height, stack diameter, exit velocity, and exit temperature.

Meteorological data: Hourly, gridded, divergence free, u and v wind components for each vertical level; hourly gridded mixing heights and surface temperatures; hourly exposure class; hourly vertical potential temperature gradient above and below the mixing height; hourly surface atmospheric pressure; hourly water mixing ratio; and gridded surface roughness lengths.

Air quality data: Concentration of all carbon bond 4 species at the beginning of the simulation for each grid cell; and hourly concentrations of each pollutant at each level along the inflow boundaries and top boundary of the modeling region.

Other data requirements are: Hourly mixed layer average, NO_2 photolysis rates; and ozone surface uptake resistance along with associated gridded vegetation (scaling) factors.

c. *Output*

Printed output includes:

- Gridded instantaneous concentration fields at user-specified time intervals for user-specified pollutants and grid levels;
- Gridded time-average concentration fields for user-specified time intervals, pollutants, and grid levels.

d. *Type of Model*

UAM is a three dimensional, numerical, photochemical grid model.

e. *Pollutant Types*

UAM may be used to model ozone (O_3) formation from oxides of nitrogen (NO_x) and volatile organic compound (VOC) emissions.

f. *Source-Receptor Relationship*

Low-level area and point source emissions are specified within each surface grid cell. Emissions from major point sources are placed within cells aloft in accordance with calculated effective plume heights.

Hourly average concentrations of each pollutant are calculated for all grid cells at each vertical level.

g. *Plume Behavior*

Plume rise is calculated for major point sources using relationships recommended by Briggs (1971).

h. *Horizontal Winds*

See Input Requirements.

i. *Vertical Wind Speed*

Calculated at each vertical grid cell interface from the mass continuity relationship using the input gridded horizontal wind field.

j. *Horizontal Dispersion*

Horizontal eddy diffusivity is set to a user specified constant value (nominally 50 m^2/s).

k. *Vertical Dispersion*

Vertical eddy diffusivities for unstable and neutral conditions calculated using relationships of Lamb et al. (1977); for stable conditions, the relationship of Businger and Arya (1974) is employed. Stability class, friction velocity, and Monin-Obukhov length determined using procedure of Liu et al. (1976).

l. *Chemical Transformation*

UAM employs a simplified version of the Carbon-Bond IV Mechanism (CBM-IV) developed by Gery et al. (1988) employing various steady state approximations.

m. *Physical Removal*

Dry deposition of ozone and other pollutant species are calculated. Vegetation (scaling) factors are applied to the reference surface uptake resistance of each species depending on land use type.

n. *Evaluation Studies*

Builtjes, P.J.H., K.D. van der Hurt, and S.D. Reynolds, 1982. Evaluation of the Performance of a Photochemical Dispersion Model in Practical Applications, 13th International Technical Meeting on Air Pollution Modeling and Its Application, Ile des Embiez, France.

Cole, H.S., D.E. Layland, G.K. Moss, and C.F. Newberry, 1983. The St. Louis Ozone Modeling Project. EPA Publication No. EPA–450/4–83–019. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Dennis, R.L., M.W. Downton, and R.S. Keil, 1983. Evaluation of Performance Measures for an Urban Photochemical Model. EPA Publication No. EPA–450/4–83–021. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Haney, J.L. and T.N. Braverman, 1985. Evaluation and Application of the Urban Airshed Model in the Philadelphia Air Quality Control Region. EPA Publication No. EPA–450/4–85–003. U.S. Environmental Protection Agency, Research Triangle Park, NC.

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Reynolds, S.D., H. Hogo, W.R. Oliver, L.E. Reid, 1982. Application of the SAI Airshed Model to the Tulsa Metropolitan Area, SAI No. 82004. Systems Applications, Inc., San Rafael, CA.

Schere, K.L. and J.H. Shreffler, 1982. Final Evaluation of Urban-Scale Photochemical Air Quality Simulation Models. EPA Publication No. EPA–600/3–82–094. U.S. Environmental Protection Agency, Research Triangle Park, NC.

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Information, Appendix A—A Compilation of Simulation Results. EPA Publication No. EPA–450/4–81–031b. U.S. Environmental Protection Agency, Research Triangle Park, NC.

South Coast Air Quality Management District, 1989. Air Quality Management Plan—Appendix V-R (Urban Airshed Model Performance Evaluation). El Monte, CA.

Stern, R. and B. Scherer, 1982. Simulation of a Photochemical Smog Episode in the Rhine-Ruhr Area with a Three Dimensional Grid Model. 13th International Technical Meeting on Air Pollution Modeling and Its Application, Ile des Embiez, France.

Tesche, T. W., C. Seigneur, L. E. Reid, P. M. Roth, W. R. Oliver, and J. C. Cassmassi, 1981. The Sensitivity of Complex Photochemical Model Estimates to Detail in Input Information. EPA Publication No. EPA–450/4–81–031a. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Tesche, T. W., W. R. Oliver, H. Hogo, P. Saxeena and J. L. Haney, 1983. Volume IV—Assessment of NO_x Emission Control Requirements in the South Coast Air Basin—Appendix A. Performance Evaluation of the Systems Applications Airshed Model for the 26–27 June 1974 O_3 Episode in the South Coast Air Basin, SYSAPP 83/037. Systems Applications, Inc., San Rafael, CA.

Tesche, T. W., W. R. Oliver, H. Hogo, P. Saxeena and J. L. Haney, 1983. Volume IV—Assessment of NO_x Emission Control Requirements in the South Coast Air Basin—Appendix B. Performance Evaluation of the Systems Applications Airshed Model for the 7–8 November 1978 NO_2 Episode in the South Coast Air Basin, SYSAPP 83/038. Systems Applications, Inc., San Rafael, CA.

Tesche, T. W, 1988. Accuracy of Ozone Air Quality Models. Journal of Environmental Engineering, 114(4): 739–752.

A.9 Offshore and Coastal Dispersion Model (OCD)

Reference

DiCristofaro, D. C. and S. R. Hanna, 1989. OCD: The Offshore and Coastal Dispersion Model, Version 4. Volume I: User's Guide, and Volume II: Appendices. Sigma Research Corporation, Westford, MA. (NTIS Nos. PB 93–144384 and PB 93–144392)

Availability

This model code is available on the Support Center for Regulatory Air Models Bulletin Board System and also from the National Technical Information Service (see page A–1).

Technical

Contact: Minerals Management Service, Attn: Mr. Dirk Herkoff, Parkway Atrium Building, 381 Elden Street, Herndon, VA 22070–4817, Phone: (703) 787–1735.

Abstract

OCD is a straight-line Gaussian model developed to determine the impact of offshore emissions from point, area or line sources on the air quality of coastal regions. OCD incorporates overwater plume transport and dispersion as well as changes that occur as the plume crosses the shoreline. Hourly meteorological data are needed from both offshore and onshore locations. These include water surface temperature, overwater air temperature, mixing height, and relative humidity.

Some of the key features include platform building downwash, partial plume penetration into elevated inversions, direct use of turbulence intensities for plume dispersion, interaction with the overland internal boundary layer, and continuous shoreline fumigation.

a. *Recommendations for Regulatory Use*

OCD has been recommended for use by the Minerals Management Service for emissions located on the Outer Continental Shelf (50 FR 12248; 28 March 1985). OCD is applicable for overwater sources where onshore receptors are below the lowest source height. Where onshore receptors are above the lowest source height, offshore plume transport and dispersion may be modeled on a case-by-case basis in consultation with the EPA Regional Office.

b. *Input Requirements*

Source data: Point, area or line source location, pollutant emission rate, building height, stack height, stack gas temperature, stack inside diameter, stack gas exit velocity, stack angle from vertical, elevation of stack base above water surface and gridded specification of the land/water surfaces. As an option, emission rate, stack gas exit velocity and temperature can be varied hourly.

Meteorological data (over water): Wind direction, wind speed, mixing height, relative humidity, air temperature, water surface temperature, vertical wind direction shear (optional), vertical temperature gradient (optional), turbulence intensities (optional).

Meteorological data (over land): Wind direction, wind speed, temperature, stability class, mixing height.

Receptor data: Location, height above local ground-level, ground-level elevation above the water surface.

c. *Output*

All input options, specification of sources, receptors and land/water map including locations of sources and receptors.

Summary tables of five highest concentrations at each receptor for each averaging period, and average concentration for entire run period at each receptor.

Optional case study printout with hourly plume and receptor characteristics. Optional table of annual impact assessment from non-permanent activities.

Concentration files written to disk or tape can be used by ANALYSIS postprocessor to produce the highest concentrations for each receptor, the cumulative frequency distributions for each receptor, the tabulation of all concentrations exceeding a given threshold, and the manipulation of hourly concentration files.

d. *Type of Model*

OCD is a Gaussian plume model constructed on the framework of the MPTER model.

e. *Pollutant Types*

OCD may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

Up to 250 point sources, 5 area sources, or 1 line source and 180 receptors may be used.

Receptors and sources are allowed at any location.

The coastal configuration is determined by a grid of up to 3600 rectangles. Each element of the grid is designated as either land or water to identify the coastline.

g. *Plume Behavior*

As in MPTER, the basic plume rise algorithms are based on Briggs' recommendations.

Momentum rise includes consideration of the stack angle from the vertical.

The effect of drilling platforms, ships, or any overwater obstructions near the source are used to decrease plume rise using a revised platform downwash algorithm based on laboratory experiments.

Partial plume penetration of elevated inversions is included using the suggestions of Briggs (1975) and Weil and Brower (1984).

Continuous shoreline fumigation is parameterized using the Turner method where complete vertical mixing through the thermal internal boundary layer (TIBL) occurs as soon as the plume intercepts the TIBL.

h. *Horizontal Winds*

Constant, uniform wind is assumed for each hour.

Overwater wind speed can be estimated from overland wind speed using relationship of Hsu (1981).

Wind speed profiles are estimated using similarity theory (Businger 1973). Surface layer fluxes for these formulas are calculated from bulk aerodynamic methods.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to [redacted].

j. *Horizontal Dispersion*

Lateral turbulence intensity is recommended as a direct estimate of horizontal dispersion. If lateral turbulence intensity is not available, it is estimated from boundary layer theory. For wind speeds less than 8 m/s, lateral turbulence intensity is assumed inversely proportional to wind speed.

Horizontal dispersion may be enhanced because of obstructions near the source. A virtual source technique is used to simulate the initial plume dilution due to downwash.

Formulas recommended by Pasquill (1976) are used to calculate buoyant plume enhancement and wind direction shear enhancement.

At the water/land interface, the change to overland dispersion rates is modeled using a virtual source. The overland dispersion rates can be calculated from either lateral turbulence intensity or Pasquill-Gifford curves. The change is implemented where the plume intercepts the rising internal boundary layer.

k. *Vertical Dispersion*

Observed vertical turbulence intensity is not recommended as a direct estimate of vertical dispersion. Turbulence intensity should be estimated from boundary layer theory as default in the model. For very stable conditions, vertical dispersion is also a function of lapse rate.

Vertical dispersion may be enhanced because of obstructions near the source. A virtual source technique is used to simulate the initial plume dilution due to downwash.

Formulas recommended by Pasquill (1976) are used to calculate buoyant plume enhancement.

At the water/land interface, the change to overland dispersion rates is modeled using a virtual source. The overland dispersion rates can be calculated from either vertical turbulence intensity or the Pasquill-Gifford coefficients. The change is implemented where the plume intercepts the rising internal boundary layer.

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Different rates can be specified by month and by day or night.

m. *Physical Removal*

Physical removal is also treated using exponential decay.

n. *Evaluation Studies*

DiCristofaro, D. C. and S. R. Hanna, 1989. OCD: The Offshore and Coastal Dispersion Model. Volume I: User's Guide. Sigma Research Corporation, Westford, MA.

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Hanna, S. R., L. L. Schulman, R. J. Paine and J. E. Pleim, 1984. The Offshore and Coastal Dispersion (OCD) Model User's Guide, Revised. OCS Study, MMS 84–0069. Environmental Research & Technology, Inc., Concord, MA. (NTIS No. PB 86–159803)

Hanna, S. R., L. L. Schulman, R. J. Paine, J. E. Pleim and M. Baer, 1985. Development and Evaluation of the Offshore and Coastal Dispersion (OCD) Model. Journal of the Air Pollution Control Association, 35: 1039–1047.

A.10 EMISSIONS AND DISPERSION MODELING SYSTEM (EDMS)

Reference

Segal, H. M., 1991. "EDMS—Microcomputer Pollution Model for Civilian Airports and Air Force Bases: User's Guide." FAA Report No. FAA–EE–91–3; USAF Report No. ESL–TR–91–31, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591. (NTIS No. ADA 240528)

Segal, H. M., and Hamilton, P. L., 1988. "A Microcomputer Pollution Model for Civilian Airports and Air Force Bases—Model Description." FAA Report No. FAA–EE–88–4; USAF Report No. ESL–TR–88–53, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591. (NTIS No. ADA 199003)

Segal, H. M., 1988. "A Microcomputer Pollution Model for Civilian Airports and Air Force Bases—Model Application and Background." FAA Report No. FAA–EE–88–5; USAF Report No. ESL–TR–88–55, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591. (NTIS No. ADA 199794)

Availability

EDMS is available for $40 from the address listed below: Federal Aviation Administration, Attn: Mr. Howard Segal, AEE–120, 800 Independence Avenue, SW., Washington, DC 20591, Phone: (202) 267–3494.

Abstract

EDMS is a combined emissions/dispersion model for assessing pollution at civilian airports and military air bases. This model, which was jointly developed by the Federal Aviation Administration (FAA) and the United States Air Force (USAF), produces an emission inventory of all airport sources and calculates concentrations produced by these sources at specified receptors. The system stores emission factors for fixed sources such as fuel storage tanks and incinerators and also for mobile sources such as automobiles or aircraft. EDMS incorporates an emissions model to calculate an emission inventory for each airport source and a dispersion model, the Graphical Input Microcomputer Model (GIMM), (Segal, 1983) to calculate pollutant concentrations produced by these sources at specified receptors. The GIMM, which processes point, area, and line sources, also incorporates a special meteorological preprocessor for processing up to one year of National Climatic Data Center (NCDC) hourly data. The model operates in both a screening and refined mode, accepting up to 170 sources and 10 receptors.

a. *Recommendations for Regulatory Use*

EDMS is appropriate for the following applications:

- Cumulative effect of changes in aircraft operations, point source and mobile source emissions at airports or air bases;
- simple terrain;
- transport distances less than 50 kilometers; and
- 1-hour to annual averaging times.

b. *Input Requirements*

All data are entered through a "runtime" version of the Condor data base which is an integral part of EDMS. Typical entry items are source and receptor coordinates, percent cold starts, vehicles per hour, etc. Some point sources, such as heating plants, require stack height, stack diameter, and effluent temperature inputs.

Wind speed, wind direction, hourly temperature, and Pasquill-Gifford stability category (P–G) are the meteorological inputs. They can be entered manually through the EDMS data entry screens or automatically through the processing of previously loaded NCDC hourly data.

c. *Output*

Printed outputs consist of:

- A monthly and yearly emission inventory report for each source entered; and
- A concentration summing report for up to 8760 hours (one year) of data.

d. *Type of Model*

For its emissions inventory calculations, EDMS uses algorithms consistent with the EPA Compilation of Air Pollutant Emission Factors, AP–42. For its dispersion calculations, EDMS uses the GIMM model which is described in reports FAA–EE–88–4 and FAA–EE–88–5, referenced above. GIMM uses a Gaussian plume algorithm.

e. *Pollutant Types*

EDMS inventories and calculates the dispersion of carbon monoxide, nitrogen oxides, sulphur oxides, hydrocarbons, and suspended particles.

f. *Source-Receptor Relationship*

Up to 170 sources and 10 receptors can be treated simultaneously. Area sources are treated as a series of lines that are positioned perpendicular to the wind.

Line sources (roadways, runways) are modeled as a series of points. Terrain elevation differences between sources and receptors are neglected.

Receptors are assumed to be at ground level.

g. *Plume Behavior*

Plume rise is calculated for all point sources (heating plants, incinerators, etc.) using Briggs plume rise equations (Catalano, 1986; Briggs, 1969; Briggs, 1971; Briggs, 1972).

Building and stack tip downwash effects are not treated.

Roadway dispersion employs a modification to the Gaussian plume algorithms as suggested by Rao and Keenan (1980) to account for close-in vehicle-induced turbulence.

h. *Horizontal Winds*

Steady state winds are assumed for each hour. Winds are assumed to be constant with altitude.

Winds are entered manually by the user or automatically by reading previously loaded NCC annual data files.

i. *Vertical Wind Speed*

Vertical wind speed is assumed to be zero.

j. *Horizontal Dispersion*

Four stability classes are used (P–G classes B through E).

Horizontal dispersion coefficients are computed using a table lookup and linear interpolation scheme. Coefficients are based on Pasquill (1976) as adapted by Petersen (1980).

A modified coefficient table is used to account for traffic-enhanced turbulence near roadways. Coefficients are based upon data included in Rao and Keenan (1980).

k. *Vertical Dispersion*

Four stability classes are used (P-G classes B through E).

Vertical dispersion coefficients are computed using a table lookup and linear interpolation scheme. Coefficients are based on Pasquill (1976) as adapted by Petersen (1980).

A modified coefficient table is used to account for traffic-enhanced turbulence near roadways. Coefficients are based upon data from Rao and Keenan (1980).

l. *Chemical Transformation*

Chemical transformations are not accounted for.

m. *Physical Removal*

Deposition is not treated.

n. *Evaluation Studies*

Segal, H. M. and P. L. Hamilton, 1988. A Microcomputer Pollution Model for Civilian Airports and Air Force Bases—Model Description. FAA Report No. FAA–EE–88–4; USAF Report No. ESL–TR–88–53, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591.

Segal, H. M., 1988. A Microcomputer Pollution Model for Civilian Airports and Air Force Bases—Model Application and Background. FAA Report No. FAA–EE–88–5; USAF Report No. ESL–TR–88–55, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591.

A.11 Complex Terrain Dispersion Model Plus Algorithms for Unstable Situations (CTDMPLUS)

Reference

Perry, S. G., D. J. Burns, L. H. Adams, R. J. Paine, M. G. Dennis, M. T. Mills, D. G. Strimaitis, R. J. Yamartino and E. M. Insley, 1989. User's Guide to the Complex Terrain Dispersion Model Plus Algorithms for Unstable Situations (CTDMPLUS). Volume 1: Model Descriptions and User Instructions. EPA Publication No. EPA–600/8–89–041. Environmental Protection Agency, Research Triangle Park, NC. (NTIS No. PB 89–181424)

Paine, R. J., D. G. Strimaitis, M. G. Dennis, R. J. Yamartino, M. T. Mills and E. M. Insley, 1987. User's Guide to the Complex Terrain Dispersion Model, Volume 1. EPA Publication No. EPA–600/8–87–058a. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS No. PB 88–162169)

Availability

This model code is available on the Support Center for Regulatory Air Models Bulletin Board System and also from the National Technical Information Service (See page A–1).

Abstract

CTDMPLUS is a refined point source Gaussian air quality model for use in all stability conditions for complex terrain applications. It contains, in its entirety, the technology of CTDM for stable and neutral conditions. However, CTDMPLUS can also simulate daytime, unstable conditions, and has a number of additional capabilities for improved user friendliness. Its use of meteorological data and terrain information is different from other EPA models; considerable detail for both types of input data is required and is supplied by preprocessors specifically designed for CTDMPLUS. CTDMPLUS requires the parameterization of individual hill shapes using the terrain preprocessor and the association of each model receptor with a particular hill.

a. *Recommendation for Regulatory Use*

CTDMPLUS is appropriate for the following applications:

- Elevated point sources;
- Terrain elevations above stack top;
- Rural or urban areas;
- Transport distances less than 50 kilometers; and
- One hour to annual averaging times when used with a post-processor program such as CHAVG.

b. *Input Requirements*

Source data: For each source, user supplies source location, height, stack diameter, stack exit velocity, stack exit temperature, and emission rate; if variable emissions are appropriate, the user supplies hourly values for emission rate, stack exit velocity, and stack exit temperature.

Meteorological data: The user must supply hourly averaged values of wind, temperature and turbulence data for creation of the basic meteorological data file ("PROFILE"). Meteorological preprocessors then create a SURFACE data file (hourly values of mixed layer heights, surface friction velocity, Monin-Obukhov length and surface roughness length) and a RAWINsonde data file (upper air measurements of pressure, temperature, wind direction, and wind speed).

Receptor data: Receptor names (up to 400) and coordinates, and hill number (each receptor must have a hill number assigned).

Terrain data: User inputs digitized contour information to the terrain preprocessor which creates the TERRAIN data file (for up to 25 hills).

c. *Output*

When CTDMPLUS is run, it produces a concentration file, in either binary or text format (user's choice), and a list file containing a verification of model inputs, i.e.,

- Input meteorological data from "SURFACE" and "PROFILE"
- Stack data for each source
- Terrain information
- Receptor information
- Source-receptor location (line printer map).

In addition, if the case-study option is selected, the listing includes:

- Meteorological variables at plume height
- Geometrical relationships between the source and the hill
- Plume characteristics at each receptor, i.e.,
  - → distance in along-flow and cross flow direction.
  - → effective plume-receptor height difference.
  - → effective σ_y & σ_z values, both flat terrain and hill induced (the difference shows the effect of the hill).
  - → concentration components due to WRAP, LIFT and FLAT.

If the user selects the TOPN option, a summary table of the top 4 concentrations at each receptor is given. If the ISOR option is selected, a source contribution table for every hour will be printed.

A separate disk file of predicted (1-hour only) concentrations ("CONC") is written if the user chooses this option. Three forms of output are possible:

(1) A binary file of concentrations, one value for each receptor in the hourly sequence as run;

(2) A text file of concentrations, one value for each receptor in the hourly sequence as run; or

(3) A text file as described above, but with a listing of receptor information (names, positions, hill number) at the beginning of the file.

Hourly information provided to these files besides the concentrations themselves includes the year, month, day, and hour information as well as the receptor number with the highest concentration.

d. *Type of Model*

CTDMPLUS is a refined steady-state, point source plume model for use in all stability conditions for complex terrain applications.

e. *Pollutant Types*

CTDMPLUS may be used to model non-reactive, primary pollutants.

f. *Source-Receptor Relationship*

Up to 40 point sources, 400 receptors and 25 hills may be used. Receptors and sources are allowed at any location. Hill slopes are assumed not to exceed 15°, so that the linearized equation of motion for Bouissinesq flow are applicable. Receptors upwind of the impingement point, or those associated with any of the hills in the modeling domain, require separate treatment.

g. *Plume Behavior*

As in CTDM, the basic plume rise algorithms are based on Briggs' (1975) recommendations.

A central feature of CTDMPLUS for neutral/stable conditions is its use of a critical dividing-streamline height (H_c) to separate the flow in the vicinity of a hill into two separate layers. The plume component in the upper layer has sufficient kinetic energy to pass over the top of the hill while streamlines in the lower portion are constrained to flow in a horizontal plane around the hill. Two separate components of CTDMPLUS compute ground-level concentrations resulting from plume material in each of these flows.

The model calculates on an hourly (or appropriate steady averaging period) basis how the plume trajectory (and, in stable/neutral conditions, the shape) is deformed by each hill. Hourly profiles of wind and temperature measurements are used by CTDMPLUS to compute plume rise, plume penetration (a formulation is included to handle penetration into elevated stable layers, based on Briggs (1984)), convective scaling parameters, the value of H_c, and the Froude number above H_c.

h. *Horizontal Winds*

CTDMPLUS does not simulate calm meteorological conditions. Both scalar and vector wind speed observations can be read by the model. If vector wind speed is unavailable, it is calculated from the scalar wind speed. The assignment of wind speed (either vector or scalar) at plume height is done by either:

- Interpolating between observations above and below the plume height, or
- Extrapolating (within the surface layer) from the nearest measurement height to the plume height.

i. *Vertical Wind Speed*

Vertical flow is treated for the plume component above the critical dividing streamline height (H_c); see "Plume Behavior".

j. *Horizontal Dispersion*

Horizontal dispersion for stable/neutral conditions is related to the turbulence velocity scale for lateral fluctuations, σ_v, for which a minimum value of 0.2 m/s is used. Convective scaling formulations are used to estimate horizontal dispersion for unstable conditions.

k. *Vertical Dispersion*

Direct estimates of vertical dispersion for stable/neutral conditions are based on observed vertical turbulence intensity, e.g., σ_w (standard deviation of the vertical velocity fluctuation). In simulating unstable (convective) conditions, CTDMPLUS relies on a skewed, bi-Gaussian probability density function (PDF) description of the vertical velocities to estimate the vertical distribution of pollutant concentration.

l. *Chemical Transformation*

Chemical transformation is not treated by CTDMPLUS.

m. *Physical Removal*

Physical removal is not treated by CTDMPLUS (complete reflection at the ground/hill surface is assumed).

n. *Evaluation Studies*

Burns, D. J., L. H. Adams and S. G. Perry, 1990. Testing and Evaluation of the CTDMPLUS Dispersion Model: Daytime Convective Conditions. Environmental Protection Agency, Research Triangle Park, NC.

Paumier, J. O., S. G. Perry and D. J. Burns, 1990. An Analysis of CTDMPLUS Model Predictions with the Lovett Power Plant Data Base. Environmental Protection Agency, Research Triangle Park, NC.

Paumier, J. O., S. G. Perry and D. J. Burns, 1992. CTDMPLUS: A Dispersion Model for Sources near Complex Topography. Part II: Performance Characteristics. Journal of Applied Meteorology, 31(7): 646–660.

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Appendix B to Appendix W of Part 51—Summaries of Alternative Air Quality Models

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B.0 Introduction and Availability

This appendix summarizes key features of refined air quality models that may be considered on a case-by-case basis for individual regulatory applications. For each model, information is provided on availability, approximate cost in 1990, regulatory use, data input, output format and options, simulation of atmospheric physics and accuracy. The models are listed by name in alphabetical order.

There are three separate conditions under which these models will normally be approved for use: First, if a demonstration can be made that the model produces concentration estimates equivalent to the estimates obtained using a preferred model (e.g., the maximum or high, second-high concentration is within 2% of the estimate using the comparable preferred model); second, if a statistical performance evaluation has been conducted using measured air quality data and the results of that evaluation indicate the model in Appendix B performs better for the application than a comparable model in Appendix A; and third, if there is no preferred model for the specific application but a refined model is needed to satisfy regulatory requirements. Any one of these three separate conditions may warrant use of these models. See section 3.2, Use of Alternative Models, for additional details.

Many of these models have been subject to a performance evaluation by comparison with observed air quality data. A summary of such comparisons for models contained in this appendix is included in "A Survey of Statistical Measures of Model Performance and Accuracy for Several Air Quality Models", EPA–450/4–83–001. Where possible, several of the models contained herein have been subjected to rigorous evaluation exercises, including (1) statistical performance measures recommended by the American Meteorological Society and (2) peer scientific reviews.

Any availability statement for models in this appendix that refers to the User's Network for Applied Modeling of Air Pollution (UNAMAP) should be ignored since the UNAMAP is no longer operational. However, a source for some of these models and user's documentation is: Computer Products, National Technical Information Service (NTIS), U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

A number of the model codes and selected, abridged user's guides are also available from the Support Center for Regulatory Air Models Bulletin Board System [19] (SCRAM BBS), Telephone (919) 541–5742. The SCRAM BBS is an electronic bulletin board system designed to be user friendly and accessible from anywhere in the country. Model users with personal computers are encouraged to use the SCRAM BBS to download current model codes and text files.

B.1 Air Quality Display Model (AQDM)

Reference

TRW Systems Group, 1969. Air Quality Display Model. Prepared for National Air Pollution Control Administration, DHEW. U.S. Public Health Service, Washington, DC (NTIS No. PB 189194)

Availability

The above User's Guide is available from NTIS at a cost of $16.95. This model is available at no cost in the form of a punched card deck from: Library Services, MD–35, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attn: Ann Ingram.

Abstract

AQDM is a climatological steady state Gaussian plume model that estimates annual arithmetic average sulfur dioxide and particulate concentrations at ground level in urban areas. A statistical model based on Larsen (1971) is used to transform the average concentration data from a limited number of receptors into expected geometric mean and maximum concentration values for several different averaging times.

a. *Recommendations for Regulatory Use*

AQDM can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. AQDM must be executed in the equivalent mode.

AQDM can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that AQDM is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: Average emissions rates and heights of emissions for point and area sources; stack gas temperature, stack gas exit velocity, and stack inside diameter for plume rise calculations for point sources.

Meteorological data requirements are: Stability wind rose (STAR deck), average afternoon mixing height, average morning mixing height, and average air temperature.

Receptor data requirements are: number and locations of receptors. If the Larsen transform option is to be used to estimate short averaging time concentrations, measured standard geometric deviation of concentrations is required.

c. *Output*

Printed output includes:

One month to one year average concentrations (arithmetic mean only) at each receptor;

Optional arbitrary averaging time by Larsen (1971) procedure (typically l–24 hr); and

Optional individual point, area source culpability list for each receptor.

d. *Type of Model*

AQDM is a Gaussian plume model.

e. *Pollutant Types*

AQDM may be used to model non-reactive pollutants. Settling and deposition are not treated.

f. *Source Receptor Relationship*

AQDM applies user-specified locations and stack height for each point source.

AQDM uses any location and size for each area source.

Up to 225 receptors may be located on uniform rectangular grid.

Up to 12 user-specified receptor locations are permitted.

Unique release height is used for each point and area source. Receptors are assumed to be at ground level.

No terrain differences between source and receptor are treated.

g. *Plume Behavior*

AQDM uses Briggs (1969) plume rise formulas.

No plume rise is calculated for area sources.

Fumigation and downwash are not treated.

Zero concentration is assumed when plume height is greater than mixing height.

h. *Horizontal Winds*

Wind data are input as stability wind rose (joint frequency distribution) of 16 wind directions, six wind speed classes, and five stability classes.

No variation in wind speed with height is assumed.

Constant, uniform (steady-state) wind is assumed.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Pollutants are assumed evenly distributed across a 22.5 degree sector.

Frequency of occurrence of a meteorological state is interpolated between sector center lines.

Averaging times from 1 month to 1 year or longer are treated.

k. *Vertical Dispersion*

Rural dispersion coefficients from Turner (1969) are used.

Five stability classes are as defined by Turner (1964). Stability classes E and F are combined, and assigned dispersion values equivalent to stability class D.

Neutral stability is split internally into 60% day, 40% night, with the two differing only in the treatment of mixing height.

Mixing height is a function of a single input afternoon mixing height, a single input morning mixing height, modified by the stability class.

l. *Chemical Transformations*

Not treated.

m. *Physical Removal*

Not treated.

n. *Evaluation Studies*

McNidar, R.R., 1977. Variability Analysis of Long-term Dispersion Models. Joint Conference on Applications of Air Pollution Meteorology, American Meteorology Society, 29 November–2 December, 1977, Salt Lake City, UT.

Turner, D.B., J.R. Zimmerman, and A.D. Busse, 1973. An Evaluation of Some Climatological Dispersion Models. In Appendix E, User's Guide to the Climatological Dispersion Model, EPA Publication No. EPA–R4–73–024, Environmental Protection Agency, Research Triangle Park, NC.

Londergan, R.J., D.H. Minott, D.J. Wachter and R.R. Fizz, 1983. Evaluation of Urban Air Quality Simulation Models. EPA Publication No. EPA–450/4–83–020. U.S. Environmental Protection Agency, Research Triangle Park, NC.

B.2 Air Resources Regional Pollution Assessment (ARRPA) Model

Reference

Mueller, S.F., R.J. Valente, T.L. Crawford, A.L. Sparks, and L.L. Gautney, Jr., 1983. Description of the Air Resources Regional Pollution Assessment (ARRPA) Model. TVA/ONR/AQB–83/14. Tennessee Valley Authority, Muscle Shoals, AL.

Availability

The computer code and sample input for this model on magnetic tape and a copy of the User's Guide are available from: Computer Services Development Branch, Office of Natural Resources and Economic Development, Tennessee Valley Authority, OSWHA, Muscle Shoals, AL 35660, Phone: (205) 386–2985.

A hard copy of the model output corresponding with the sample input is also available. The cost of copying model information to a buyer-supplied 2400-ft, high density tape is estimated to be about $100. The User's Guide is free of charge.

Abstract

The ARRPA model is a medium/long-range segmented-plume model. It is designed to compute air concentrations and surface dry mass deposition of sulfur dioxide and sulfate. A unique feature of the model is its use of prognostic meteorological output from the National Weather Service Boundary Layer Model (BLM). Boundary layer conditions are computed by the BLM on a grid with a spatial resolution of 80km, and are archived in intervals of 3 hours. BLM output used by this model includes three dimensional wind field components and potential temperature at 10 height levels from the surface through 2000m above the surface.

a. *Recommendations for Regulatory Use*

Use of the model for transport distances of less than 10km is not recommended. For 10km to beyond 50km, there is no specific recommendation at the present time. The model may be used on a case-by-case basis.

b. *Input Requirements*

Source data requirements: Location (latitude and longitude), stack height, stack diameter, stack gas exit velocity, stack gas temperature, SO_2 emission rate, $SO_4^=$ emission rate, stack base elevation.

Meteorological data requirements: Hourly wind field components (u,v,w), potential temperature (Θ), Pasquill-Gifford stability class and mixing height. These data are obtained as output from the BLM output preprocessing program called MDPP (Mueller and Valente, 1983). Required input to MDPP is BLM output (in three-hour intervals) of u, v, w, and Θ, surface layer friction velocity (u_*) and surface layer values of the inverse Monin-Obukhov length (L^{-1}).

Receptor data requirements: Gridded receptor array coordinates (x and y) and receptor heights (z) from a receptor preprocessing program called HEIGHT. HEIGHT produces a user-designed array of points which may be skewed up to ±90 degrees relative to the model x axis. The elevation of each receptor is adjusted to give height above smoothed model terrain. Non-gridded receptors can be specified using latitude/longitude coordinates.

c. *Output*

Printed output includes:

Listings of input parameters (except for meteorological data);

Listing of hours processed and flags for missing data periods.

Disk output: Parameters for controlling analysis and printout options in the postprocessing program called ANALYSIS; hourly SO_2 and $SO_4^=$ air concentrations and dry deposition amounts at each receptor.

Optional printed output: Two programs are available for displaying model output—DISPLAY and ANALYSIS; DISPLAY prints out hourly gridded concentration and/or deposition fields for user-specified time periods; ANALYSIS prints out (1) the five highest concentrations of SO_2 and/or $SO_4^=$ at each receptor for 1-hour, 3-hour (optional) and 24-hour (optional) averaging periods, (2) average SO_2 and/or SO_4 concentrations at each receptor for the entire analysis period and (3) gridded SO_2 and/or $SO_4^=$ dry deposition amounts for the day having the greatest dry deposition and for the entire analysis period.

d. *Type of Model*

The ARRPA model is a Gaussian segmented-plume model.

e. *Pollutant Types*

SO_2 and $SO_4^=$ are treated.

f. *Source-Receptor Relationship*

One source is treated per model run, though results from several sources may be superimposed.

Either constant or variable emission rates may be used.

Receptors (up to 100) in gridded network may have different elevations. Height of receptors above ground is variable.

g. *Plume Behavior*

Plume rise is computed in a piecewise-continuous manner through discrete model layers (Mueller, et al., 1983).

Plume can be isolated from the ground (lofting).

Plume height varies in time and space.

h. *Horizontal Winds*

Hourly horizontal wind components, specified at 80km intervals across the model grid, are spatially interpolated and vertically averaged through the plume depth to get plume transport vectors. A model option is available that uses the wind vector near the vertical plume center instead of computing a vertically-averaged vector.

i. *Vertical Wind Speed*

The mass-conserving BLM wind field used in this model provides vertical wind components that vary horizontally and vertically, and are used to adjust plume height.

j. *Horizontal Dispersion*

Plume half-width (σ_y) growth goes through four stages:

(1) Growth follows Turner curves for $\sigma_y < 1000$m;

(2) A transition in growth behavior from Turner curves to dynamical-statistical (Langevin) theory occurs for $1000\text{m} \leq \sigma_y < 6000$m;

(3) Growth is based on dynamical-statistical theory for $\sigma_y > 6000$m; eddy diffusivity computed from Pasquill-Gifford stability class;

(4) Growth approaches that described by Taylor's statistical theory (limit of dynamical-statistical theory for time much larger than the Lagrangian time correlation) for $\sigma_y > 10{,}000$m.

k. *Vertical Dispersion*

Plume half-depth (σ_z) growth is based on combination of Brookhaven curves for elevated plumes and Turner curves for near-ground plumes.

Vertical plume structure is Gaussian, with superimposed reflection terms, until σ_z becomes sufficiently large that a vertically uniform plume assumption is appropriate.

Maximum depth of a plume is 2000m.

l. *Chemical Transformation*

SO_2 oxidation to $SO_4^=$ is treated using a first-order chemical reaction rate constant which is parameterized to vary hourly following diurnal and seasonal cycles.

m. *Physical Removal*

Dry deposition is computed using the source depletion equation. Dry deposition velocities vary according to the stability of the surface layer.

n. *Evaluation Studies*

Muller, S. F. and L. W. Reisinger, 1986. Evaluation of the Air Resources Regional Pollution Assessment (ARRPA) Model. (Report in Progress).

B.3 APRAC–3

Reference

Simmon, P. B., R. M. Patterson, F. L. Ludwig, and L. B. Jones, 1981. The APRAC–3/Mobile 1 Emissions and Diffusion Modeling Package. EPA Publication No. EPA–909/9–81–002. U.S. Environmental Protection Agency, Region IX, San Francisco, CA. (NTIS No. PB 82–103763)

Availability

This model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

Abstract

APRAC–3 is a model which computes hourly average carbon monoxide concentrations for any urban location. The model calculates contributions from dispersion on various scales: extraurban, mainly from sources upwind of the city of interest; intraurban, from freeway, arterial, and feeder street sources; and local, from dispersion within a street canyon. APRAC–3 requires an extensive traffic inventory for the city of interest. APRAC–3, as it exists on UNAMAP (Version 6), has been updated with Mobile 2 emission factors.

a. *Recommendations for Regulatory Use*

APRAC–3 can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. APRAC–3 must be executed in the equivalent mode.

APRAC–3 can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated using the criteria in Section 3.2, that APRAC–3 is more appropriate for the specific application. In this case the model options/mode which are most appropriate for the application should be used.

Although the user's manual for APRAC–3 contains Mobile 1 emission factors, it is recommended that those emission factors be updated with the latest version of Mobile (Mobile Source Emissions Model) for use in regulatory applications.

b. *Input Requirements*

Source data requirements are: Line source (traffic link) end points, road type and daily traffic volume.

Meteorological data requirements are: Hourly wind direction (nearest 10 degrees), hourly wind speed, and hourly cloud cover for stability calculations.

Receptor data requirements are: Coordinates for up to 10 receptors for any single day and up to 8 receptors for the intersection submodel.

c. *Output*

Printed ouput includes:

Hourly calculations at each receptor.

d. *Type of Model*

APRAC–3 is a Gaussian plume model.

e. *Pollutant Types*

APRAC–3 may be used to model primary pollutants.

f. *Source-Receptor Relationship*

Traffic links may have arbitrary length and orientation. Off-link traffic is allocated to two-mile square grids. Link traffic emissions are aggregated into a receptor oriented area source array.

The boundaries of the area sources actually treated are (1) arcs at radial distances from the receptor which increase in geometric progression, (2) the sides of a 22.5° sector oriented upwind for distances greater than 1000m, and (3) the sides of a 45° sector oriented upwind for distances less than 1000m.

A similar area source array is established for each receptor.

Sources are assumed to be at ground level.

Up to 10 receptors are accepted for any single day.

Up to 625 receptors are accepted for a single-hour.

Up to 8 receptors are accepted for the intersection submodel.

Receptors are at ground level.

Receptor locations are arbitrary.

Four internally defined receptor locations on each user-designated street are used in a special street canyon sub-model.

A box model is used to estimate contribution from upwind sources beyond 32km based on wind speed, mixing height, annual fuel consumption.

In street canyon sub-model, contribution from other streets is included in background.

g. *Plume Behavior*

Plume rise is not treated.

Fumigation and downwash are not treated except in street canyon sub-model. In street canyon sub-model, a helical circulation pattern is assumed.

h. *Horizontal Winds*

User input hourly wind speed and direction in tens of degrees are used.

No variation of wind speed or direction with height is assumed.

Constant, uniform (steady-state) wind is assumed within each hour.

The model can interpolate winds at receptors if more than one wind is provided.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero except in street canyon sub-model. Helical circulation assumed by street canyon sub-model.

j. *Horizontal Dispersion*

Sector averaging is used with uniform distribution within sectors. Sector size is 22.5 degrees beyond 1km and 45.0 degrees within 1km.

k. *Vertical Dispersion*

Six stability classes are used. Stability class is determined internally from user-supplied meteorological data modified from Turner (1964).

Dispersion coefficients are adapted from McElroy and Pooler (1968). No adjustments are made for variations in surface roughness.

Downwind distance variation of σ_z is assumed to be ax^b for purposes of doing analytical integration.

In street canyon sub-model, an empirical function of wind speed and street width and direction is used.

Perfect reflection at the surface is assumed.

Mixing height is ignored until concentration equals that calculated using box model. A box model (uniform vertical distribution) is used beyond that distance.

l. *Chemical Transformation*

Not treated.

m. *Physical Removal*

Not treated.

n. *Evaluation Studies*

Ludwig, F. L. and W. F. Dabberdt, 1972. Evaluation of the APRAC-1A Urban Dispersion Model for Carbon Dioxide, SRI Project 8563. Stanford Research Institute, Menlo Park, CA.

B.4 COMPTER

Reference

State of Alabama, 1980. COMPTER Model Users Guide. Alabama Department of Environmental Management, Air Division, Montgomery, AL.

Availability

This model is available to users for tape and reproduction charges. If a tape is sent, the reproduction is free. Send tape and desired format and specifications to: Mr. Richard E. Grusnick, Chief, Air Division, Alabama Department of Environmental Management, 1751 Federal Drive, Montgomery, AL 36109.

Abstract

COMPTER is based on the Gaussian steady-state technique applicable to both urban and rural areas. The model contains the following attributes: (a) Determines maximum 24-hour, 3-hour, 1-hour and variable hour concentrations for both block and running averages; (b) elevated terrain considered with the standard plume-chopping technique or stability dependent plume path trajectory; (c) uses annual hourly meteorological data in the CRSTER preprocessor format; (d) uses Pasquill-Gifford stability curves; (e) allows for stability class substitution in the stable categories. Typical model use is in rural areas with moderate to low terrain features.

a. *Recommendations for Regulatory Use*

COMPTER can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. COMPTER must be executed in the equivalent mode.

COMPTER can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that COMPTER is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: Annual or hourly values of emission rate, exit velocity,

stack gas temperature, stack height, and stack diameter.

Meteorological data requirements are: Hourly surface weather data from the EPA meteorological preprocessor program. Preprocessor output includes hourly stability class wind direction, wind speed, temperature, and mixing height. Actual anemometer height (a single value) is optional.

Receptor data requirements are: Individual receptor coordinates; or a location and distance from the center of five rings of receptors; or a combination of individual receptors and either the rectangular grid or the rings of receptors. Elevations of all receptors may be input.

c. *Output*

Printed output includes:

Highest and second highest concentrations for the year at each receptor for averaging times of 1, 3 and 24-hours, a user-selected averaging time which may be 2–12 hours (variable hourly), and a 50 high table for 1, 3, variable hourly, and 24-hours;

Annual arithmetic average at each receptor; and the highest 1-hour and 24-hour concentrations over the receptor field for each day considered.

Computer readable output includes:

Hourly, 3-hourly, variable hourly, and 24-hourly concentrations for each receptor on magnetic storage device.

d. *Type of Model*

COMPTER is a Gaussian plume model.

e. *Pollutant Types*

COMPTER may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

A maximum 50 sources and 200 receptors are treated.

COMPTER applies user-specified locations of sources and receptors.

User input stack height and source characteristics for each source are applied.

User input topographic elevation for each receptor is applied.

Receptors are assumed to be at ground level.

g. *Plume Behavior*

Briggs' (1969, 1971, 1972) plume rise equations with limited mixing are used.

Plume height is adjustable according to stability with use of plume path coefficient.

h. *Horizontal Winds*

Constant, uniform (steady-state) wind is assumed for an hour.

Straight line plume transport is assumed to all downwind distances.

Power law wind profile exponents used are 0.10, 0.15, 0.20, 0.25, 0.30, and 0.30, for stability classes A through F, respectively. Anemometer height is assumed to be 10 meters.

i. *Vertical Wind Speed*

Vertical wind speeds are assumed equal to zero.

j. *Horizontal Dispersion*

Dispersion coefficients are from Turner (1969), with no further adjustments made for variations in surface roughness or averaging time.

Optionally, stability class 7 may be treated as Class 6.

Other options for stable class substitution include changing stabilities F and G to E, and reducing E, F, and G to D, E, and F, respectively.

k. *Vertical Dispersion*

Dispersion coefficients are from Turner (1969), with no further adjustments made for variations in surface roughness.

Optionally, by source, buoyancy induced dispersion ($\Delta H^2/10$) is included.

Optionally, stability class 7 may be treated as class 6.

Other options for stable class substitution include changing stabilities F and G to E; and reducing E, F, and G to D, E, and F, respectively.

l. *Chemical Transformation*

Not treated.

m. *Physical Removal*

Not treated.

n. *Evaluation Studies*

Londergan, R., D. Minott, D. Wackter, T. Kincaid and D. Bonitata, 1983. Evaluation of Rural Air Quality Simulation Models. EPA Publication No. EPA–450/4–83–003. U.S. Environmental Protection Agency, Research Triangle Park, NC.

B.5 ERT Air Quality Model (ERTAQ)—[Deleted]

B.6 ERT Visibility Model

Reference:

ENSR Consulting and Engineering, 1990. ERT Visibility Model: Version 4; Technical Description and User's Guide. Document M2020–003. ENSR Consulting and Engineering, 35 Nagog Park, Acton, MA 01720.

Availability

The user's guide and model code are available from the National Technical Information Service (see page B–1).

Abstract:

The ERT Visibility Model is a Gaussian dispersion model designed to estimate visibility impairment for arbitrary lines of sight due to isolated point source emissions by simulating gas-to-particle conversion, dry deposition, NO to NO_2 conversion and linear radiative transfer.

a. *Recommendations for Regulatory Use*

There is no specific recommendation at the present time. The ERT Visibility Model may be used on a case-by-case basis.

b. *Input Requirements*

Source data requirements are: Stack height, stack temperature, emissions of SO_2, NO_x, TSP, fraction of NO_x as NO_2, fraction of TSP which is carbonaceous, exit velocity, and exit radius.

Meteorological data requirements are: Hourly ambient temperature, mixing depth, wind speed at stack height, stability class, potential temperature gradient, and wind direction.

Receptor data requirements are: Observer coordinates with respect to source, latitude, longitude, time zone, date, time of day, elevation, relative humidity, background visual range, line-of-sight azimuth and elevation angle, inclination angle of the observed object, distance from observer to object, object and surface reflectivity, number and spacing of integral receptor points along line of sight.

Other data requirements are: Ambient concentrations of O_3 and NO_x, deposition velocity of TSP, sulfate, nitrate, SO_2 and NO_x, first-order transformation rate for sulfate and nitrate.

c. *Output*

Printed output includes both summary and detailed results as follows: Summary output: Page 1—site, observer and object parameters; page 2—optical pollutants and associated extinction coefficients; page 3—plume model input parameters; page 4—total calculated visual range reduction, and each pollutant's contribution; page 5—calculated plume contrast, object contrast and object contrast degradation at the 550nm wavelength; page 6—calculated blue/red ratio and ΔE ($U^*V^*W^*$) values for both sky and object discoloration.

Detailed output: Phase functions for each pollutant in four wavelengths (400, 450, 550, 650nm), concentrations for each pollutant along sight path, solar geometry, contrast parameters at all wavelengths, intensities, tristimulus values and chromaticity coordinates for views of the object, sun, background sky and plume.

d. *Type of Model*

ERT Visibility model is a Gaussian plume model for estimating visibility impairment.

e. *Pollutant Types*

Optical activity of sulfate, nitrate (derived from SO_2 and NOx emissions), primary TSP and NO_2 is simulated.

f. *Source Receptor Relationship*

Single source and hour is simulated. Unlimited number of lines-of-sight (receptors) is permitted per model run.

g. *Plume Behavior*

Briggs (1971) plume rise equations for final rise are used.

h. *Horizontal Wind Field*

A single wind speed and direction is specified for each case study. The wind is assumed to be spatially uniform.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Rural dispersion coefficients from Turner (1969) are used.

k. *Vertical Dispersion*

Rural dispersion coefficients from Turner (1969) are used. Mixing height is accounted for with multiple reflection handled by summation of series near the source, and Fourier representation farther downwind.

l. *Chemical Transformation*

First order transformations of sulfates and nitrates are used.

m. *Physical Removal*

Dry deposition is treated by the source depletion method.

n. *Evaluation Studies*

Seigneur, C., R. W. Bergstrom, and A. B. Hudischewskyj, 1982. Evaluation of the EPA PLUVUE Model and the ERT Visibility Model Based on the 1979 VISTTA Data Base, EPA Publication No. EPA–450/4–82–008. U.S. Environmental Protection Agency, Research Triangle Park, NC.

White, W. H., C. Seigneur, D. W. Heinold, M. W. Eltgroth, L. W. Richards, P. T. Roberts, P. S. Bhardwaja, W. D. Conner and W. E. Wilson, Jr., 1985. Predicting the Visibility of Chimney Plumes: An Inter-comparison of Four Models with Observations at a Well-Controlled Power Plant. Atmospheric Environment, 19: 515–528.

B.7 HIWAY–2

Reference

Petersen, W.B., 1980. User's Guide for HIWAY–2. EPA Publication No. EPA–600/8–80–018. U.S. Environmental Protection Agency, ESRL, Research Triangle Park, NC. (NTIS No. PB 80–227556)

Availability

This model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

Abstract

HIWAY–2 can be used to estimate the concentrations of non-reactive pollutants from highway traffic. This steady-state Gaussian model can be applied to determine air pollution concentrations at receptor locations downwind of "at-grade" and "cut section" highways located in relatively uncomplicated terrain. The model is applicable for any wind direction, highway orientation, and receptor location. The model was developed for situations where horizontal wind flow dominates. The model cannot consider complex terrain or large obstructions to the flow such as buildings or large trees.

a. *Recommendations for Regulatory Use*

HIWAY–2 can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. HIWAY–2 must be executed in the equivalent mode.

HIWAY–2 can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in Section 3.2, that HIWAY–2 is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: A uniform emission rate by lane, roadway end points; height of emission; length, width, and number of lanes; and width of center strip.

Meteorological data requirements are: One set at a time of hourly averages of wind speed, wind direction, and mixing height and the Pasquill-Gifford stability class. Wind speed and direction are preferred to be at 2 meters above ground.

Receptor data requirements are: Coordinates of each receptor.

c. *Output*

Printed output includes:

One hourly average concentration at each specified receptor location.

d. *Type of Model*

HIWAY–2 is a Gaussian plume model.

e. *Pollutant Types*

HIWAY–2 may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

HIWAY–2 applies user-specified end points for a single roadway segment, and user-specified receptor locations.

Plume impact on receptor is calculated by finite difference integration of a point source along each lane of the roadway.

g. *Plume Behavior*

HIWAY–2 does not treat plume rise.

h. *Horizontal Winds*

Constant, uniform (steady-state) wind is assumed for an hour.

Straight line plume transport is assumed to all downwind distances.

An aerodynamic drag factor is applied when winds are parallel to the roadway and speeds are less than 2 m/sec.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

The total horizontal dispersion is that due to ambient turbulence plus the turbulence generated by the vehicles on the roadway.

Beyond 300m downwind total turbulence is considered to be dominated by atmospheric turbulence, with plume dispersion as described by Turner (1969).

Three stability classes are considered: Unstable, neutral and stable.

k. *Vertical Dispersion*

The total horizontal dispersion is that due to ambient turbulence plus the turbulence generated by the vehicles on the roadway.

Beyond 300m downwind total turbulence is considered to be dominated by atmospheric turbulence, with plume dispersion as described by Turner (1969).

Mixing height is accounted for with multiple reflections until the vertical plume size equals 1.6 times the mixing height; uniform vertical mixing is assumed beyond that point.

Three stability classes are considered: Unstable, neutral and stable.

l. *Chemical Transformation*

Not treated.

m. *Physical Removal*

Not treated.

n. *Evaluation Studies*

Rao, S.T., and J.R. Visalli, 1981. On the Comparative Assessment of the Performance of Air Quality Models. *Journal of Air Pollution Control Association*, 31: 851–860.

B.8 Integrated Model for Plumes and Atmospheric Chemistry in Complex Terrain (IMPACT)

Reference

Fabrick, Allan J. and Peter J. Haas, 1980. User Guide to IMPACT: An Integrated Model for Plumes and Atmospheric Chemistry in Complex Terrain. DCN 80–241–403–01. Radian Corporation, 8501 Mo-Pac Blvd., Austin, TX.

Availability

A magnetic tape containing the IMPACT model, a set of test data and a copy of the IMPACT User's Guide are available for a cost of $500 from: Howard Balentine, Senior Meteorologist, Radian Corporation, Post Office Box 9948, Austin, TX 78766.

Abstract

IMPACT is an Eulerian, three-dimensional, finite difference grid model designed to calculate the impact of pollutants, either inert or reactive, in simple or complex terrain, emitted from either point or area sources. It automatically treats single or multiple point or area sources, the effects of vertical temperature stratifications on the wind and diffusion fields, shear flows caused by the atmospheric boundary layer or by terrain effects, and chemical transformations.

a. *Recommendations for Regulatory Use*

IMPACT can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. IMPACT must be executed in the equivalent mode.

IMPACT can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that IMPACT is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

There is no specific recommendation concerning the use of IMPACT for photochemical applications. IMPACT may be used on a case-by-case basis.

b. *Input Requirements*

Source data requirements are: For point sources—location (I, J), stack height, exit temperature, volume flow rate or stack diameter and exit velocity, hourly emission rates for all pollutants; for area sources location of corners, and hourly emission rates for each pollutant.

Meteorological data requirements are: Hourly wind speed and direction, surface and elevated, from meteorological stations within and surrounding the modeling area, temperature, pressure, humidity and insolation (the three last variables are optional).

Receptor data requirements are: None since concentrations are output for cells in the computational grid.

Air quality data (optional): One or more vertical concentration profiles for each pollutant.

Other data: 2–D array of terrain heights, 2–D array of surface roughness values (optional).

c. *Output*

Printed output options include:

Surface and elevated horizontal cross sections of pollutant concentrations (instantaneous, or averages over N hours where N=1, 2, 3, . . .);

Horizontal cross sections of diffusivities and wind velocities; and

Arbitrary vertical and horizontal cross sections of pollutant concentrations and diffusivities, and CALCOMP wind field vector plots are generated by the POST post-processor program.

Computer readable output includes:

Concentration, wind field and diffusivity data for each hour.

d. *Type of Model*

IMPACT is an Eulerian finite difference model.

e. *Pollutant Types*

IMPACT may be used to model any inert pollutant.

IMPACT may be used to model SO_2, $SO_4^=$, NO_x, NO_2, O_3, hydrocarbons (depends upon chemistry mechanism selected).

f. *Source-Receptor Relationship*

Up to 20 point sources and 20 area sources may be treated (greater number of sources may be treated by increasing common block storage allocation).

Concentrations are calculated at the center of each cell in the grid.

g. *Plume Behavior*

Briggs (1975) formulation for plume rise is used.

Elevated inversions are considered.

h. *Horizontal Winds*

A three dimensional stability and terrain dependent nondivergent wind field is interpolated from single or multiple wind data measurements using a Poisson technique.

i. *Vertical Wind Speed*

Vertical wind speed is treated at each wind site, user specified or extrapolated from surface data. Interpolated is accomplished as part of the three dimensional wind field interpolation.

j. *Horizontal Dispersion*

A three dimensional diffusivity field is calculated using either the technique of Myrup/Ranzieri or the DEPICT method (see User Guide, Fabrick and Haas, 1980).

k. *Vertical Dispersion*

A three dimensional diffusivity field is calculated using either the technique of Myrup/Ranzieri or the DEPICT method (see User Guide, Fabrick and Haas, 1980).

l. *Chemical Transformation*

Either 3-, 6-, 8- or 15-species mechanisms are currently available (see User Guide). Calculations are also performed for inert pollutants.

m. *Physical Removal*

Physical removal is treated using exponential decay. Half-life is input by the user.

n. *Evaluation Studies*

Fabrick, A. J., R. Sklarew, and J. Wilson, 1977. Point Source Model Evaluation and Development Study. Report prepared for the California Air Resources Board.

Fabrick, A. J., and P. J. Haas, 1980. Analysis of Dispersion Models used for Complex Terrain Simulation. Presented at the Symposium on Intermediate Range Transport Processes and Technology Assessment, Gatlinburg, TN.

Sklarew, R., and V. Mirabella, 1979. Experience in IMPACT Modeling of Complex Terrain Fourth Symposium on Turbulence, Diffusion and Air Pollution, Reno, NV.

Sklarew, R., J. Wilson, A. J. Fabrick and V. Mirabella, 1976. Rough Terrain Modeling. Presented at Geothermal Environmental Seminar '76, Clear Lake, CA.

Sklarew, R., and K. Tran, 1978. The NEWEST Wind Field Model with Applications to Thermally Driven Drainage Wind in Mountainous Terrain. Presented at the AMS Meeting, Lake Tahoe, NV.

Wackter, D., and R. Londergan, 1984. Evaluation of Complex Terrain Air Quality Simulation Models. EPA Publication No. EPA–450/4–84–017. U.S. Environmental Protection Agency, Research Triangle Park, NC.

B.9 LONGZ

Reference

Bjorklund, J. R., and J. F. Bowers, 1982. User's Instructions for the SHORTZ and LONGZ Computer Programs, Volumes I and II, EPA Publication No. EPA–903/9–82–004. U.S. Environmental Protection Agency, Region III, Philadelphia, PA.

Availability

The model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161, Phone: (703) 487–4650.

Abstract

LONGZ utilizes the steady-state univariate Gaussian plume formulation for both urban and rural areas in flat or complex terrain to calculate long-term (seasonal and/or annual) ground-level ambient air concentrations attributable to emissions from up to 14,000 arbitrarily placed sources (stacks, buildings and area sources). The output consists of the total concentration at each receptor due to emissions from each user-specified source or group of sources, including all sources. An option which considers losses due to deposition (see the description of SHORTZ) is deemed inappropriate by the authors for complex terrain, and is not discussed here.

a. *Recommendations for Regulatory Use*

LONGZ can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. LONGZ must be executed in the equivalent mode.

LONGZ can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that LONGZ is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: For point, building or area sources, location, elevation, total emission rate (optionally classified by gravitational settling velocity) and decay coefficient; for stack sources, stack height, effluent temperature, effluent exit velocity, stack radius (inner), emission rate, and ground elevation (optional);

For building sources, height, length and width, and orientation; for area sources, characteristic vertical dimension, and length, width and orientation.

Meteorological data requirements are: Wind speed and measurement height, wind profile exponents, wind direction standard deviations (turbulent intensities), mixing height, air temperature, vertical potential temperature gradient.

Receptor data requirements are: coordinates, ground elevation.

c. *Output*

Printed output includes:

Total concentration due to emissions from user-specified source groups, including the combined emissions from all sources (with optional allowance for depletion by deposition).

d. *Type of Model*

LONGZ is a climatological Gaussian plume model.

e. *Pollutant Types*

LONGZ may be used to model primary pollutants. Settling and deposition are treated.

f. *Source-Receptor Relationships*

LONGZ applies user specified locations for sources and receptors. Receptors are assumed to be at ground level.

g. *Plume Behavior*

Plume rise equations of Bjorklund and Bowers (1982) are used.

Stack tip downwash (Bjorklund and Bowers, 1982) is included.

All plumes move horizontally and will fully intercept elevated terrain.

Plumes above mixing height are ignored.

Perfect reflection at mixing height is assumed for plumes below the mixing height.

Plume rise is limited when the mean wind at stack height approaches or exceeds stack exit velocity.

Perfect reflection at ground is assumed for pollutants with no settling velocity.

Zero reflection at ground is assumed for pollutants with finite settling velocity.

LONGZ does not simulate fumigation.

Tilted plume is used for pollutants with settling velocity specified.

Buoyancy-induced dispersion is treated (Briggs, 1972).

h. *Horizontal Winds*

Wind field is homogeneous and steady-state.

Wind speed profile exponents are functions of both stability class and wind speed. Default values are specified in Bjorklund and Bowers (1982).

i. Vertical Wind Speed

Vertical wind speed is assumed equal to zero.

j. Horizontal Dispersion

Pollutants are initially uniformly distributed within each wind direction sector. A smoothing function is then used to remove discontinuities at sector boundaries.

k. Vertical Dispersion

Vertical dispersion is derived from input vertical turbulent intensities using adjustments to plume height and rate of plume growth with downwind distance specified in Bjorklund and Bowers (1982).

l. Chemical Transformation

Chemical transformations are treated using exponential decay. Time constant is input by the user.

m. Physical Removal

Gravitational settling and dry deposition of particulates are treated.

n. Evaluation Studies

Bjorklund, J. R., and J. F. Bowers, 1982. User's Instructions for the SHORTZ and LONGZ Computer Programs, Volume I and II. EPA Publication No. EPA–903/9–82–004. U.S. Environmental Protection Agency, Region III, Philadelphia, PA.

B.10 Maryland Power Plant Siting Program (PPSP) Model

References

Brower, R., 1982. The Maryland Power Plant Siting Program (PPSP) Air Quality Model User's Guide. Ref. No. PPSP–MP–38. Prepared for Maryland Department of Natural Resources, by Environmental Center, Martin Marietta Corporation, Baltimore, MD. (NTIS No. PB 82–238387)

Weil, J.C. and R.P. Brower, 1982. The Maryland PPSP Dispersion Model for Tall Stacks. Ref. No. PPSP–MP–36. Prepared for Maryland Department of Natural Resources, by Environmental Center, Martin Marietta Corporation, Baltimore, MD. (NTIS No. PB 82–219155)

Availability

Two reports referenced above are available from NTIS. The model code and test data are available on MDgnetic tape for a cost of $210 from:

Power Plant Siting Program, Department of Natural Resources, Tawes State Office Building, Annapolis, MD 21401, Attn: Dr. Michael Hirshfield

Abstract

PPSP is a Gaussian dispersion model applicable to tall stacks in either rural or urban areas, but in terrain that is essentially flat (on a scale large compared to the ground roughness elements). The PPSP model follows the same general formulation and computer coding as CRSTER, also a Gaussian model, but it differs in four MDjor ways. The differences are in the scientific formulation of specific ingredients or "sub-models" to the Gaussian model, and are based on recent theoretical improvements as well as supporting experimental data. The differences are: (1) Stability during daytime is based on convective scaling instead of the Turner criteria; (2) Briggs' dispersion curves for elevated sources are used; (3) Briggs plume rise formulas for convective conditions are included; and (4) plume penetration of elevated stable layers is given by Briggs' (1984) model.

a. Recommendations for Regulatory Use

PPSP can be used if it can be demonstrated to estiMDte concentrations equivalent to those provided by the preferred model for a given application. PPSP must be executed in the equivalent mode.

PPSP can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that PPSP is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. Input Requirements

Source data requirements are: Emission rate (monthly rates optional), physical stack height, stack gas exit velocity, stack inside diameter, stack gas temperature.

Meteorological data requirements are: Hourly surface weather data from the EPA meteorological preprocessor program. Preprocessor output includes hourly stability class, wind direction, wind speed, temperature, and mixing height. Actual anemometer height (a single value) is also required. Wind speed profile exponents (one for each stability class) are required if on-site data are input.

Receptor data requirements are: Distance of each of the five receptor rings.

c. Output

Printed output includes:

Highest and second highest concentrations for the year at each receptor for averaging times of 1, 3, and 24-hours, plus a user-selected averaging time which MDy be 2, 4, 6, 8, or 12 hours;

Annual arithmetic average at each receptor; and

For each day, the highest 1-hour and 24-hour concentrations over the receptor field.

d. Type of Model

PPSP is a Gaussian plume model.

e. Pollutant Types

PPSP may be used to model primary pollutants. Settling and deposition are not treated.

f. Source-Receptor Relationship

Up to 19 point sources are treated.

All point sources are assumed at the same location.

Unique stack height and stack exit conditions are applied for each source.

Receptor locations are restricted to 36 azimuths (every 10 degrees) and five user-specified radial distances.

g. Plume Behavior

Briggs (1975) final rise formulas for buoyant plumes are used. Momentum rise is not considered.

Transitional or distance-dependent plume rise is not modeled.

Penetration (complete, partial, or zero) of elevated inversions is treated with Briggs (1984) model; ground-level concentrations are dependent on degree of plume penetration.

h. Horizontal Winds

Wind speeds are corrected for release height based on power law variation, with different exponents for different stability classes and variable reference height (7 meters is default). Wind speed power law exponents are 0.10, 0.15, 0.20, 0.25, 0.30, and 0.30 for stability classes A through F, respectively.

Constant, uniform (steady-state) wind assumed within each hour.

i. Vertical Wind Speed

Vertical wind speed is assumed equal to zero.

j. Horizontal Dispersion

Rural dispersion parameters are Briggs (Gifford, 1975), with stability class defined by u/w* during daytime, and by the method of Turner (1964) at night.

Urban dispersion is treated by changing all stable cases to stability class D.

Buoyancy-induced dispersion (Pasquill, 1976) is included (using ΔH/3.5).

k. Vertical Dispersion

Rural dispersion parameters are Briggs (Gifford, 1975), with stability class defined by u/w* during daytime, and by the method of Turner (1964).

Urban dispersion is treated by changing all stable cases to stability class D.

Buoyancy-induced dispersion (Pasquill, 1976) is included (using ΔH/3.5).

l. Chemical Transformation

Not treated.

m. Physical Removal

Not treated.

n. Evaluation Studies

Weil, J.C. and R.P. Brower, 1982. The Maryland PPSP dispersion model for tall stacks. Ref. No. PPSP MP–36. Prepared for Maryland Department of Natural Resources. Prepared by Environmental Center, Martin Marietta Corporation, Baltimore, Maryland, (NTIS No. PB 82–219155)

Londergan, R., D. Minott, D. Wackter, T. Kincaid, and D. Bonitata, 1983. Evaluation of Rural Air Quality Simulation Models, Appendix G: Statistical Tables for PPSP EPA Publication No. EPA–450/4–83–003, Environmental Protection Agency, Research Triangle Park, NC.

B.11 Mesoscale Puff Model (MESOPUFF II)

Reference

Scire, J.S., F.W. Lurmann, A. Bass, S.R. Hanna, 1984. User's Guide to the Mesopuff II Model and Related Processor Programs. EPA Publication No. EPA–600/8–84–013. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS No. PB 84–181775)

A Modeling Protocol for Applying MESOPUFF II to Long-Range Transport Problems, 1992. EPA Publication No. EPA–454/R–92–021. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Availability

This model code is available on the Support Center for Regulatory Air Models Bulletin Board System and also from the National Technical Information Service (see page B–1).

Abstract

MESOPUFF II is a short term, regional scale puff model designed to calculate concentrations of up to 5 pollutant species (SO_2, SO_4, NO_X, HNO_3, NO_3). Transport, puff growth, chemical transformation, and wet and dry deposition are accounted for in the model.

a. *Recommendations for Regulatory Use*

There is no specific recommendation at the present time. The model may be used on a case-by-case basis.

b. *Input Requirements*

Required input data include four types: (1) Input control parameters and selected technical options, (2) hourly surface meteorological data and twice daily upper air measurements, hourly precipitation data are optional, (3) surface land use classification information, (4) source and emissions data.

Data from up to 25 surface National Weather Service stations and up to 10 upper air stations may be considered. Spatially variable fields at hour intervals of winds, mixing height, stability class, and relevant turbulence parameters are derived by MESOPAC II, the meteorological preprocessor program described in the User Guide.

Source and emission data for up to 25 point sources and/or up to 5 area sources can be included. Required information are: location in grid coordinates, stack height, exit velocity and temperature, and emission rates for the pollutant to be modeled.

Receptor data requirements: Up to a 40 X 40 grid may be used and non-gridded receptor locations may be considered.

c. *Output*

Line printer output includes: All input parameters, optionally selected arrays of ground-level concentrations of pollutant species at specified time intervals.

Line printer contour plots output from MESOFILE II post-processor program. Computer readable output of concentration array to disk/tape for each hour.

d. *Type of Model*

MESOPUFF II is a Gaussian puff superposition model.

e. *Pollutant types modeled*

Up to five pollutant species may be modeled simultaneously and include: SO_2, SO_4, NO_x, HNO_3, NO_3.

f. *Source-Receptor Relationship*

Up to 25 point sources and/or up to 5 area sources are permitted.

g. *Plume Behavior*

Briggs (1975) plume rise equations are used, including plume penetration with buoyancy flux computed in the model.

Fumigation of puffs is considered and may produce immediate mixing or multiple reflection calculations at user option.

h. *Horizontal Winds*

Gridded wind fields are computed for 2 layers; boundary layer and above the mixed layer. Upper air rawinsonde data and hourly surface winds are used to obtain spatially variable u,v component fields at hourly intervals. The gridded fields are computed by interpolation between stations in the MESOPAC II preprocessor.

i. *Vertical Wind Speed*

Vertical winds are assumed to be zero.

j. *Horizontal Dispersion*

Incremental puff growth is computed over discrete time steps with horizontal growth parameters determined from power law equations fit to sigma y curves of Turner out to 100km. At distances greater than 100km, puff growth is determined by the rate given by Heffter (1965).

Puff growth is a function of stability class and changes in stability are treated. Optionally, user input plume growth coefficients may be considered.

k. *Vertical Dispersion*

For puffs emitted at an effective stack height which is less than the mixing height, uniform mixing of the pollutant within the mixed layer is performed. For puffs centered above the mixing height, no effect at the ground occurs.

l. *Chemical Transformation*

Hourly chemical rate constants are computed from empirical expressions derived from photochemical model simulations.

m. *Physical Removal*

Dry deposition is treated with a resistance method.

Wet removal may be considered if hourly precipitation data are input.

n. *Evaluation Studies*

Results of tests for some model parameters are discussed in:

Scire, J. S., F. W. Lurmann, A. Bass, S. R. Hanna, 1984. Development of the MESOPUFF II Dispersion Model. EPA Publication No. EPA–600/3–84–057. U.S. Environmental Protection Agency, Research Triangle Park, NC.

B.12 Mesoscale Transport Diffusion and Deposition Model for Industrial Sources (MTDDIS)

Reference

Wang, I.T. and T.L. Waldron, 1980. User's Guide for MTDDIS Mesoscale Transport, Diffusion, and Deposition Model for Industrial Sources. EMSC6062.1UR(R2). Combustion Engineering, Newbury Park, CA.

Availability

A magnetic tape copy of the FORTRAN coding and the user's guide are available for a cost of $100 from: Dr. I.T. Wang, Combustion Engineering, Environmental Monitoring and Services, Inc., 2421 West Hillcrest Drive, Newbury Park, CA 19320.

Abstract

MTDDIS is a variable-trajectory Gaussian puff model applicable to long-range transport of point source emissions over level or rolling terrain. It can be used to determine 3-hour maximum and 24-hour average concentrations of relatively nonreactive pollutants from up to 10 separate stacks.

a. *Recommendations for Regulatory Use*

There is no specific recommendation at the present time. The MTDDIS Model may be used on a case-by-case basis.

b. *Input Requirements*

Source data requirements are: Emission rate, physical stack height, stack gas exit velocity, stack inside diameter, stack gas temperature, and location.

Meteorological data requirements are: Hourly surface weather data, from up to 10 stations, including cloud ceiling, wind direction, wind speed, temperature, opaque cloud cover and precipitation. For long-range applications, user-analyzed daily mixing heights are recommended. If these are not available, the NWS daily mixing heights will be used by the program. A single upper air sounding station for the region is assumed. For each model run, air trajectories are generated for a 48-hour period, and therefore, the afternoon mixing height of the day before and the mixing heights of the day after are also required by the model as input, in order to generate hourly mixing heights for the modeled period.

Receptor data requirements are: Up to three user-specified rectangular grids.

c. *Output*

Printed output includes:

Tabulations of hourly meteorological parameters include both input surface observations and calculated hourly stability classes and mixing heights for each station;

Printed air trajectories for the two consecutive 24-hour periods for air parcels generated 4 hours apart starting at 0000 LST; and

3-hour maximum and 24-hour average grid concentrations over user-specified rectangular grids are output for the second 24-hour period.

d. *Type of Model*

MTDDIS is a Gaussian puff model.

e. *Pollutant Types*

MTDDIS can be used to model primary pollutants. Dry deposition is treated. Exponential decay can account for some reactions.

f. *Source-Receptor Relationship*

MTDDIS treats up to 10 point sources.

Up to three rectangular receptor grids may be specified by the user.

g. *Plume Behavior*

Briggs (1971, 1972) plume rise formulas are used.

If plume height exceeds mixing height, ground level concentration is assumed zero.

Fumigation and downwash are not treated.

h. *Horizontal Winds*

Wind speeds and wind directions at each station are first corrected for release height. Speed conversions are based on power law variation and direction conversions are based on linear height dependence as recommended by Irwin (1979).

Converted wind speeds and wind directions are then weighted according to the

algorithms of Heffter (1980) to calculate the effective transport wind speed and direction.

i. *Vertical Wind Field*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Transport-time-dependent dispersion coefficients from Heffter (1980) are used.

k. *Vertical Dispersion*

Transport-time-dependent dispersion coefficients from Heffter (1980) are used.

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Half-life is input by the user.

m. *Physical Removal*

Dry deposition is treated. User input deposition velocity is required.

Wet deposition is treated. User input hourly precipitation rate and precipitation layer depth or cloud ceiling height are required.

n. *Evaluation Studies*

None cited.

B.13 Models 3141 and 4141

Reference

Enviroplan, Inc, 1981. User's Manual for Enviroplan's Model 3141 and Model 4141. Enviroplan, Inc., West Orange, NJ.

Availability

A magnetic tape copy of the FORTRAN coding and the user's guide are available for a cost of $1,900 from: Environplan, Inc., 59 Main Street, West Orange, NJ 07052.

Abstract

Models 3141 and 4141 are modifications of CRSTER (UNAMAP VERSION 3) and are applicable to complex terrain particularly where receptor elevation approximately equals or exceeds the stack top elevation. The model utilizes intermediate ground displacement procedures and dispersion enhancements developed from an aerial tracer study and ground level concentrations measured for a power plant located in complex terrain.

a. *Recommendations for Regulatory Use*

3141 or 4141 can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. 3141 or 4141 must be executed in the equivalent mode.

3141 or 4141 can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in Section 3.2, that 3141 or 4141 is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: Emission rate, physical stack height, stack gas exit velocity, stack inside diameter, stack gas exit temperature.

Meteorological data requirements are: Hourly surface weather data from the EPA meteorological preprocessor program. Preprocessor output includes hourly stability class, wind direction, wind speed, temperature, and mixing height. Actual anemometer height (a single value) is also required. Wind speed profile exponents (one for each stability class) are required if on-site data are input.

Receptor data requirements are: Distance of each of five receptor rings, and receptor elevation.

c. *Output*

Printed output includes:

Highest and second highest concentrations for the year at each receptor for averaging times of 1, 3, and 24 hours, plus a user-selected averaging time which may be 2, 4, 6, 8, or 12 hours.

Annual arithmetic average at each receptor.

For each day, the highest 1-hour and 24-hour concentrations over the receptor field.

d. *Type of Model*

3141 and 4141 are Gaussian plume models.

e. *Pollutant Types*

3141 and 4141 may be used to model non-reactive pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

Up to 19 point sources are treated.

No area sources are treated.

All point sources are assumed to be collocated.

Unique stack height is used for each source.

Receptor locations are restricted to 36 azimuths (every 10 degrees) and 5 user-specified radial distances.

Unique topographic elevation is used for each receptor.

g. *Plume Behavior*

Briggs (1969, 1971, 1972) final plume rise formulas are used.

If plume height exceeds mixing height at a receptor location after terrain adjustment, concentration is assumed equal to zero.

h. *Horizontal Winds*

Wind speeds are corrected for release height based on power law variation exponents from DeMarrais (1959), different exponents for different stability classes, reference height=7 meters. Exponents used are 0.10, 0.15, 0.20, 0.25, 0.30, and 0.30 for stability classes A through F, respectively.

Constant, uniform (steady-state) wind is assumed within each hour.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Dispersion coefficients are Pasquill-Gifford coefficients from Turner (1969).

Dispersion is adjusted to 60 minute averaging time by one-fifth power rule (Gifford, 1975).

Buoyancy-induced dispersion (Briggs, 1975) is included.

k. *Vertical Dispersion*

Dispersion coefficients are Pasquill-Gifford coefficients from Turner (1969).

Buoyancy-induced dispersion (Briggs, 1975) is included.

l. *Chemical Transformation*

Not treated.

m. *Physical Removal*

Not treated.

n. *Evaluation Studies*

Ellis, H.M., P.C. Liu, and C. Runyon, 1979. "Comparison of Predicted and Measured Concentrations for 54 Alternative Models of Plume Transport in Complex Terrain, Presented in APCA Annual Conference, Cincinnati, OH.

Ellis, H.M., P.C. Liu, and C. Runyon, 1980. Comparison of Predicted and Measured Concentrations for 58 Alternative Models of Plume Transport in Complex Terrain. *Journal of the Air Pollution Control Association*, 30(6): 670–675.

Londergan, R., D. Minott, D. Wachter, T. Kincaid and D. Bonitata. Evaluation of Rural Air Quality Simulation Models. EPA Publication No. EPA–450/4–83–003, Environmental Protection Agency, Research Triangle Park, NC.

Wackter, D., and R. Londergan, 1984. Evaluation of Complex Terrain Air Quality Simulation Models. EPA Publication No. EPA–450/4–84–017. U.S. Environmental Protection Agency, Research Triangle Park, NC.

B.14 MULTIMAX

Reference

Moser, J.H., 1979. MULTIMAX: An Air Dispersion Modeling Program for Multiple Sources, Receptors, and Concentration Averages. Shell Development Company, Westhollow Research Center, P.O. Box 1380, Houston, TX. (NTIS No. PB 80–170178).

Availability

The above report is available from NTIS ($16.95 for paper copy; $5.95 on microfiche). The accession number for the computer tape for MULTIMAX is PB 80–170160, and the cost is $370.00. Requests should be sent to: Computer Products, National Technical Information Service, U.S. Department of Commerce, 5825 Port Royal Road, Springfield, VA 22161, Phone: (703) 487–4650.

Abstract

MULTIMAX is a Gaussian plume model applicable to both urban and rural areas. It can be used to calculate highest and second-highest concentrations, for each of several averaging times due to up to 100 sources arbitrarily located.

a. *Recommendations for Regulatory Use*

MULTIMAX can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. MULTIMAX must be executed in the equivalent mode.

MULTIMAX can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that MULTIMAX is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: Emission rate, physical stack height, stack gas exit velocity, stack inside diameter, and stack gas temperature.

Meteorological data requirements are: Hourly surface weather data from the EPA meteorological preprocessor program. Preprocessor output includes hourly stability class, wind direction, wind speed, temperature, and mixing height. Actual anemometer height (a single value) is also required. Wind speed profile exponents (one for each stability class) are required if on-site data are input.

Receptor requirements are: Individual receptor points, arcs and circles of receptors, or lines of receptors may be input, with receptor point locations, receptor line end points, and receptor circle center and radius defined in either cartesian or polar coordinates.

c. *Output*

Printed output includes: Highest and second-highest concentrations for the year at each receptor for averaging time of 1, 3, and 24 hours. Annual arithmetic average at each receptor.

Computer readable output includes: Input data and results.

d. *Type of Model*

MULTIMAX is a Gaussian plume model.

e. *Pollutant Types*

MULTIMAX may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

Up to 100 point sources at any location may be input.

Area sources are not treated.

Point sources may be at any location.

Unique stack height is used for each source.

Unique topographic elevation is used for each receptor; must be below top of stack.

Receptors can be defined individually, or along lines or arcs.

g. *Plume Behavior*

MULTIMAX uses Briggs (1969, 1971, 1972) final plume rise formulas.

If plume height exceeds mixing height, concentrations downwind are assumed equal to zero.

h. *Horizontal Winds*

Wind speeds are corrected for release height based on power law variation exponents from DeMarrais (1959), different exponents for different stability classes, reference height=10 meters. The exponents are 0.10, 0.15, 0.20, 0.25, 0.30, and 0.30 for stability classes A through F, respectively.

Constant, uniform (steady-state) wind is assumed within each hour.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Rural dispersion coefficients from Turner (1969) are used in MULTIMAX with no adjustments made for variations in surface roughness.

Six stability classes are used, with Turner class 7 treated as Class 6. Averaging time adjustment is optional.

k. *Vertical Dispersion*

Rural dispersion coefficients from Turner (1969) are used in MULTIMAX with no adjustments made for variations in surface roughness.

Six stability classes are used, with Turner class 7 treated as Class 6.

Perfect reflection at the ground is assumed.

Mixing height is accounted for with multiple reflections until the vertical plume size equals 1.6 times the mixing height; uniform mixing is assumed beyond that point.

l. *Chemical Transformation*

Not treated.

m. *Physical Removal*

Not treated.

n. *Evaluation Studies*

Londergan, R., D. Minott, D. Wackter, T. Kincaid, and D. Bonitata, 1983. Evaluation of Rural Air Quality Simulation Models. EPA Publication No. EPA–450/4–83–003. U.S. Environmental Protection Agency, Research Triangle Park, NC.

B.15 Multiple Point Source Diffusion Model (MPSDM—[Deleted]

B.16 Multi-Source (SCSTER) Model

Reference

Malik, M.H. and B. Baldwin, 1980. Program Documentation for Multi-Source (SCSTER) Model. Program Documentation EN7408SS. Southern Company Services, Inc., Technical Engineering Systems, 64 Perimeter Center East, Atlanta, GA.

Availability

The SCSTER model and user's manual are available at no charge to a limited number of persons through Southern Company Services. A magnetic tape must be provided by those desiring the model. Requests should be directed to: Mr. Bryan Baldwin, Research Program Supervisor, Air Quality Program, Southern Company Services, Post Office Box 2625, Birmingham, AL 35202.

Abstract

SCSTER is a modified version of the EPA CRSTER model. The primary distinctions of SCSTER are its capability to consider multiple sources that are not necessarily collocated, its enhanced receptor specifications, its variable plume height terrain adjustment procedures and plume distortion from directional wind shear.

a. *Recommendations for Regulatory Use*

SCSTER can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. SCSTER must be executed in the equivalent mode.

SCSTER can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that SCSTER is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: Emission rate, stack gas exit velocity, stack gas temperature, stack exit diameter, physical stack height, elevation of stack base, and coordinates of stack location. The variable emission data can be monthly or annual averages.

Meteorological data requirements are: Hourly surface weather data from the EPA meteorological preprocessor program. Preprocessor output includes hourly stability class wind direction, wind speed, temperature, and mixing height. Actual anemometer height (a single value) is optional. Wind speed profile exponents (one for each stability class) are optional.

Receptor data requirements are: Cartesian coordinates and elevations of individual receptors; distances of receptor rings, with elevation of each receptor; receptor grid networks, with elevation of each receptor.

Any combination of the three receptor input types may be used to consider up to 600 receptor locations.

c. *Output*

Printed output includes:

Highest and second highest concentrations for the year at each receptor for averaging times of 1-, 3-, and 24-hours, a user-selected averaging time which may be 2–12 hours, and a 50 high table for 1-, 3-, and 24-hours.

Annual arithmetic average at each receptor; and the highest 1-hour and 24-hour concentrations over the receptor field for each day considered.

Optional tables of source contributions of individual point sources at up to 20 receptor locations for each averaging period.

Optional magnetic tape output in either binary or fixed block format includes: All 1-hour concentrations.

Optional card/disk output includes for each receptor: Receptor coordinates; receptor elevation; highest and highest, second-highest, 1-, 3-, and 24-hour concentrations; and annual average concentration.

d. *Type of Model*

SCSTER is a Gaussian plume model.

e. *Pollutant Types*

SCSTER may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

SCSTER can handle up to 60 separate stacks at varying locations and up to 600 receptors, including up to 15 receptor rings.

User input topographic elevation for each receptor is used.

g. *Plume Behavior*

SCSTER uses Briggs (1969, 1971, 1972) final plume rise formulas. Transitional plume rise is optional.

SCSTER contains options to incorporate wind directional shear with a plume distortion method described in Appendix A of the User's Guide.

SCSTER provides four terrain adjustments including the CRSTER full terrain height adjustment and a user-input, stability-dependent plume path coefficient adjustment for receptors above stack height.

h. *Horizontal Winds*

Wind speeds are corrected for release height based on power law exponents from DeMarrais (1959), different exponents for different stability classes; default reference height of 7m. Default exponents are 0.10, 0.15, 0.20, 0.25, 0.30, and 0.30 for stability classes A through F, respectively.

Steady-state wind is assumed within a given hour.

Optional consideration of plume distortion due to user-input, stability-dependent wind-direction shear gradients.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Rural dispersion coefficients from Turner (1969) are used.

Six stability classes are used.

k. *Vertical Dispersion*

Rural dispersion coefficients from Turner (1969) are used.

Six stability classes are used.

An optional test for plume height above mixing height before terrain adjustment is included.

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Half-life is input by the user.

m. *Physical Removal*

Physical removal is treated using exponential decay. Half-life is input by the user.

n. *Evaluation Studies*

Londergan, R., D. Minott, D. Wackter, T. Kincaid and D. Bonitata, 1983. Evaluation of Rural Air Quality Simulation Models. EPA Publication No. EPA–450/4–83–003. U.S. Environmental Protection Agency, Research Triangle Park, NC.

B.17 Pacific Gas and Electric Plume5 Model

Reference

User's Manual for Pacific Gas and Electric PLUME5 Model, 1981. Pacific Gas and Electric Company, San Francisco, CA.

Availability

The User's Manual will be supplied for cost of reproduction. An IBM version of the model can be obtained on a user supplied tape free of charge from: Mr. Robert N. Swanson, Pacific Gas and Electric Company, 245 Market Street, Rm. 451, San Francisco, CA 94106.

Abstract

PLUME5 is a steady-state Gaussian plume model applicable to both rural and urban areas in uneven terrain. Pollutant concentrations at 500 receptors from up to 10 sources with up to 15 stacks each can be calculated using up to 5 meteorological inputs. The model in its "basic" mode is similar to CRSTER and MPTER. Several options are available that allow better simulation of atmospheric conditions and improved model outputs. These options allow plume rise into or through a stable layer and crosswind spread of the plume by wind directional shear with height, initial plume expansion, mean (advective) wind speed, terrain considerations, and chemical transformation of pollutants.

Differences that exist between PLUME5 and CRSTER are in the following areas: Stability class determination, hourly mixing height schemes, hourly stable layer data, randomization of wind direction, extent of data set required for preprocessing meteorological data inputs.

a. *Recommendations for Regulatory Use*

PLUME5 can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. PLUME5 must be executed in the equivalent mode.

PLUME5 can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that PLUME5 is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: Cartesian or polar coordinates of each source with stack height, diameter, gas temperature, and exit velocity for each stack.

Meteorological data requirements are: Surface data—hourly meteorological data including wind direction, wind speed, temperature, and either ceiling height and total sky cover or sigma A or Delta T depending on how stability is computed; stable layer data—either NCC data or site specific user supplied data.

Receptor data requirements are: Cartesian or polar coordinates of each receptor.

c. *Output*

Printed output includes:

Highest and second highest concentrations for the year printed out at each receptor for averaging times of 1, 3, and 24-hours, plus a user-selected averaging time which may be 2, 4, 6, 8, or 12 hours.

Annual arithmetic average at each receptor.

For each day, the highest 1-hour and 24-hour concentrations over the receptor field are printed.

Hourly effective stack height and effective stack height distributions.

Vertical profiles of maximum pollutant concentrations above a designated height (Z_o) for the data period processed.

Cumulative number of exceedances of 1 hour and 24-hour specified values for all receptors during the entire meteorological data period. These specified values will normally be National and State Ambient Air Quality Standards.

Computer readable output includes:

Hourly concentrations for each receptor on magnetic tape.

Computer file for input to plotting routine. The file stores the highest 1-hour (or other specified time period) concentration at each receptor for the entire meteorological data period for input into a user supplied plotting routine.

d. *Type of Model*

PLUME5 is a Gaussian plume model.

e. *Pollutant Types*

PLUME5 may be used to model primary pollutants. Chemical transformations of pollutants are treated by exponential decay and/or ozone limiting procedures.

f. *Source-Receptor Relationship*

Can input up to 10 separate sources with up to 15 stacks per source.

Unique stack height for each source. Rectangular or circular receptor locations (up to 500) can be either model generated or user input.

Terrain considerations:

When plume rise, H, is above the stable layer top concentration estimates will only be calculated for receptors at or above the stable layer top. If the receptor is below the stable layer top, then the concentration is zero.

When plume rise falls within the stable layer, concerntration estimates will be only caluclated for receptors located within this region. If the receptor height is above or below the stable top, then the concentration is zero.

When plume rise falls below the stable layer and the receptor height is above the stable layer base, then the concentration is zero. If the receptor height is below the stable layer base, the receptor height is redefined.

g. *Plume Behavior*

PLUME5 uses Briggs (1975) final plume rise formulas.

Expansion of plumes within and above a stable layer is treated.

h. *Horizontal Winds*

User-supplied hourly wind directions are read to nearest 1, 5, 10, and 22.5 degrees. (The 5, 10 and 22.5 degree values are randomly modified to nearest whole degree within the intervals).

PLUME5 employs the extrapolated mean wind speed at stack height when the effective stack height is equal to or less than the height of the inversion base above ground. If the plume rises into a stable layer, a separate algorithm is used.

Constant, uniform (steady state) wind assumed within each hour.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

Six stability classes are defined by either radiation index and wind speed (STAR), wind direction fluctuation, or temperature lapse rate.

Nighttime stability class is based on wind direction fluctuations or temperature lapse rate and may be modified according to the method of Mitchell and Timbre (1979).

Dispersion curves are from Turner (1969).

k. *Vertical Dispersion*

Six stability classes are defined by either radiation index and wind speed (STAR), wind direction fluctuations, or temperature lapse rate.

Nighttime stability class is based on wind direction fluctuations or temperature laspe rate and modified according to the method of Mitchell-Timbre (1979).

Dispersion curves are from Turner (1969).

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay and/or ozone limiting procedures.

m. *Physical Removal*

Physical removal is treated using exponential decay. Half-life is input by the user.

n. *Evaluation Studies*

Londergan, R., D. Minott, D. Wackter, T. Kincaid and B. Bonitata, 1983. Evaluation of Rural Air Quality Simulation Models. EPA Publication No. EPA–450/4–83–003. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Wackter, D., and R. Londergan, 1984. Evaluation of Complex Terrain Air Quality Simulation Models. EPA Publication No. EPA–450/4–84–017. U.S. Environmental Protection Agency, Research Triangle Park, NC.

B.18 PLMSTAR Air Quality Simulation Model

Reference

Lurmann, F. W., D. A. Godden, and H. Collins, 1985. User's Guide to the PLMSTAR Air Quality Simulation Model. ERT Document No. M–2206–100, Environmental Research & Technology, Inc., Newbury Park, CA.

Availability

The above report and a computer tape are available from: Computer Products, National Technical Information Service, U.S. Department of Commerce, 5825 Port Royal Road, Springfield, VA 22161. Phone: (703) 487–4650.

Abstract:

PLMSTAR is a mesoscale Lagrangian photochemical model designed to predict atmospheric concentrations of O_3, NO_2, HNO_3, PAN, SO_2, and SO_4= from reactive hydrocarbons, NO_X and SO_X emissions. PLMSTAR is intended to simulate the behavior of pollutants in chemically reactive plumes resulting from major point source emissions. The model's Lagrangian air parcel is subdivided into a 5 layer/9 column domain of computational cells. The approach allows for realistic simulation of the combined effects of atmospheric chemical reactions and pollutant dispersion in the horizontal and vertical directions. Other key features of the model include: the capability for generation of trajectories at any level of a three-dimensional, divergence-free wind field; the capability for calculating and utilizing the time and space varying surface deposition of pollutants; an up-to-date O_3/RHC/NO_X/SO_X chemical mechanism that utilizes eight classes of reactive hydrocarbons; the capability for simultaneously handling both point and area source emissions; and the capability to simulate overwater conditions and land/water transitions.

a. *Recommendation for Regulatory Use*

There is no specific recommendation at the present time. The PLMSTAR Model may be used on a case-by-case basis.

b. *Input Requirements*

Source data requirements are: Emission rates, stack parameters, diurnal emission profiles, and RHC, NO_X, and SO_X partitioning profiles.

Meteorological data requirements are: Station location, grid geometry, surface winds, surface roughness, surface temperature, temperature profiles, mixing heights (optional), cloud cover, solar radiation, and winds aloft.

Receptor data requirements are: Receptor locations and topography.

c. *Output*

Printed output includes: Computed concentrations at specified times and receptors along the trajectory.

d. *Type of Model*

PLMSTAR is a Lagrangian photochemical model.

e. *Pollutant Types*

The key chemical species included in the model are O_3, NO, NO_2, HNO_3, PAN, SO_2, SO_4=, CO, and eight classes of reactive hydrocarbons. Twenty additional intermediate species are included in the chemical mechanism.

f. *Source-Receptor Relationships*

Source-receptor relationships for individual sources are calculated using a differencing technique. That is, simulations are made with and without an individual source (or group of collocated sources) in addition to the RHC/NO_X/SO_X emissions from all other sources in the region. The emission processors allow for up to 250 point sources and an unlimited number of area sources (allocated to a grid of 36 x 36 squares) to be included in the simulation.

g. *Plume Behavior*

Plume rise calculations are based on Briggs (1975).

h. *Horizontal Winds*

Gridded hourly multi-level horizontal wind fields are generated using techniques similar to those reported by Goodin et al. (1979). These involve wind data interpolation, divergence minimization, and terrain adjustment. Trajectory path segments are then generated by interpolation from the gridded horizontal wind fields in 15 minute steps at the user selected vertical level. Either source or receptor oriented trajectory may be generated.

i. *Vertical Wind speed*

Vertical speed is produced by WINDMOD, but is not utilized in the trajectory calculation or the pollutant advection algorithm.

j. *Vertical Dispersion*

Vertical eddy diffusivities (Kz) over land are calculated as a function of wind speed, stability, surface roughness, and boundary layer height. Over water, wind speed, air-to-sea temperature difference, humidity, and boundary layer height are the key parameters.

The effects of vertical dispersion on pollutant concentrations are calculated by numerically integrating finite difference approximations to the diffusion equation.

Mixing heights can be internally calculated or externally specified.

k. *Horizontal Dispersion*

Horizontal eddy diffusivities (K_y) are calculated either as a function of K_z and stability class or as a function of σ_y. The effects of horizontal dispersion on pollutant concentrations are calculated by numerically integrating finite difference approximations to the diffusion equation.

l. *Chemical Transformation*

PLMSTAR incorporates a slightly condensed version of the Atkinson et al. (1982) photochemical mechanism for O_3/RHC/NO_x/SO_x/air mixtures. The mechanism contains 62 reactions involving 38 species, including 8 classes of organic precursors. The effects of chemical transformations on pollutant concentrations are computed by numerically integrating the nonlinear kinetic rate equations.

m. *Physical Removal*

Dry deposition of O_3, NO_2, HNO_3, PAN, SO_2, and SO_4= is based on the model of Wesely and Hicks (1977).

n. *Evaluation Studies*

Lurmann, F. W., D. A. Godden and A. C. Lloyd, 1982. The Development and Selected Sensitivity, Tests of the PLMSTAR Reactive Plume Model, Presented at the Third Joint Conference on Applications of Air Pollution Meteorology, San Antonio, TX.

Godden, D. and F. Lurmann, 1983. Development of the PLMSTAR Model and its Application to Ozone Episode Conditions in the South Coast Air Basin, ERT Document No. P–A702–200, Environmental Research & Technology, Inc., Newbury Park, CA.

Blumenthal, D. L., T. B. Smith, D. E. Lehrman, N. L. Alexander, F. Lurman, and D. Godden, 1985. Analysis of Aerometric and Meteorological Data for the Ventura County Region, Ref. #90094–511–FR. Sonoma Technology, Inc., and Environmental Research and Technology, Inc., for the Western Oil and Gas Association, Los Angeles, CA.

B.19 Plume Visibility Model (PLUVUE II)

Reference

Environmental Protection Agency, 1992. User's Manual for the Plume Visibility Model, PLUVUE II (Revised). EPA Publication No. EPA–454/B–92–008. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Availability

This model code is available on the Support Center for Regulatory Air Models Bulletin Board System and also from the National Technical Information Service (see page B–1).

Abstract

The Plume Visibility Model (PLUVUE II) is a computerized model used for estimating visual range reduction and atmospheric discoloration caused by plumes resulting from the emissions of particles, nitrogen oxides and sulfur oxides from a single emission source. PLUVUE II predicts the transport, dispersion, chemical reactions,

optical effects and surface deposition of point or area source emissions. Addenda to the User's Manual were prepared in February 1985 to allow execution of PLUVUE II and the test cases on the UNIVAC computer.

a. *Recommendations for Regulatory Use*

The Plume Visibility Model (PLUVUE II) may be used on a case-by-case basis. When applying PLUVUE II to assess the visual impact of a plume, the following precautions should be taken to avoid the possibility of error:

1. Treat the optical effects of NO_2 and particles separately as well as together to avoid cancellation of NO_2 absorption with particle scattering.

2. Examine the visual impact of the plume in 0.1 (or 0), 0.5, and 1.0 times the expected level of particulate matter in the background air.

3. Examine the visual impact of the plume over the full range of obser-ver - plume - sun angles.

b. *Input Requirements*

Source data requirements are: Location and elevation; emission rates of SO_2, NO_x, and particulates; flue gas flow rate, exit velocity, and exit temperature; flue gas oxygen content; properties (including density, mass median and standard geometric deviation of radius) of the emitted aerosols in the accumulation (0.1–1.0 μm) and coarse (1.0–10 μm) size modes; and deposition velocities for SO_2, NO_x, coarse mode aerosol, and accumulations mode aerosol.

Meteorological data requirements are: Stability class, wind direction (for an observer-based run), wind speed, lapse rate, air temperature, relative humidity, and mixing height.

Other data requirements are: Ambient background concentrations of NO_x, NO_2, O_3, and SO_2, background visual range or sulfate and nitrate concentrations.

Receptor (observer) data requirements are: Location, elevation, terrain which will be observed through the plume (for observer based run with white, gray, and black viewing backgrounds).

c. *Output*

Printed output includes: Plume concentrations and visual effects at specified downwind distances for calculated or specified lines of sight.

d. *Type of Model*

PLUVUE is a Gaussian plume model.

e. *Pollutant Types*

PLUVUE II treats NO, NO_2, SO_2, H_2SO_4, HNO_3, O_3, primary and secondary particles to calculate effects on visibility.

f. *Source Receptor Relationship*

PLUVUE treats a single point or area source.

Predicted concentrations and visual effects are obtained at user specified downwind distances.

g. *Plume Behavior*

PLUVUE uses Briggs (1969, 1971, 1972) final plume rise equations.

h. *Horizontal Winds*

User-specified wind speed (and direction for an observer-based run) are assumed constant for the calculation.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

User specified plume widths, or widths computed from either Pasquill-Gifford-Turner curves (Turner, 1969) or TVA curves (Carpenter, et al., 1971) are used in PLUVUE.

k. *Vertical Dispersion*

User specified plume depths, or computer from Pasquill-Gifford-Turner curves (Turner, 1969) or TVA curves (Carpenter, et al., 1971) are used in PLUVUE.

l. *Chemical Transformation*

PLUVUE II treats the chemistry of NO, NO_2, O_3, OH, $O(^1D)$, SO_2, HNO_3, and H_2SO_4, by means of nine reactions. Steady state approximations are used for radicals and for the $NO/NO_2/O_3$ reactions.

m. *Physical Removal*

Dry deposition of gaseous and particulate pollutants is treated using deposition velocities.

n. *Evaluation Studies*

Bergstrom, R. W., C. Seigneur, B. L. Babson, H. Y. Holman and M. A. Wojcik, 1981. Comparison of the Observed and Predicted Visual Effects Caused by Power Plant Plumes. Atmospheric Environment, 15: 2135–2150.

Bergstrom, R. W., Seigneur, C. D. Johnson, and L. W. Richards, 1984. Measurements and Simulations of the Visual Effects of Particulate Plumes. Atmospheric Environment, 18(10): 2231–2244.

Seigneur, C., R. W. Bergstrom, and A. B. Hudischewskyj, 1982. Evaluation of the EPA PLUVUE Model and the ERT Visibility Model Based on the 1979 VISTTA Data Base. EPA Publication No. EPA–450/4–82–008. U.S. Environmental Protection Agency, Research Triangle Park, NC.

White, W. H., C. Seigneur, D. W. Heinold, M. W. Eltgroth, L. W. Richards, P. T. Roberts, P. S. Bhardwaja, W. D. Conner and W. E. Wilson, Jr, 1985. Predicting the Visibility of Chimney Plumes: An Inter-comparison of Four Models with Observations at a Well-Controlled Power Plant. Atmospheric Environment, 19: 515–528.

B.20 Point, Area, Line Source Algorithm (PAL–DS)

Reference

Petersen, W. B, 1978. User's Guide for PAL—A Gaussian-Plume Algorithm for Point, Area, and Line Sources. EPA Publication No. EPA–600/4–78–013. Office of Research and Development, Research Triangle Park, NC. (NTIS No. PB 281306)

Rao, K. S. and H. F. Snodgrass, 1982. PAL–DS Model: The PAL Model Including Deposition and Sedimentation. EPA Publication No. EPA–600/8–82–023. Office of Research and Development, Research Triangle Park, NC. (NTIS No. PB 83–117739)

Availability

This model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Phone: (703) 487–4650

Abstract

PAL–DS is an acronym for this point, area, and line source algorithm and is a method of estimating short-term dispersion using Gaussian-plume steady-state assumptions. The algorithm can be used for estimating concentrations of non-reactive pollutants at 99 receptors for averaging times of 1 to 24 hours, and for a limited number of point, area, and line sources (99 of each type). This algorithm is not intended for application to entire urban areas but is intended, rather, to assess the impact on air quality, on scales of tens to hundreds of meters, of portions of urban areas such as shopping centers, large parking areas, and airports. Level terrain is assumed. The Gaussian point source equation estimates concentrations from point sources after determining the effective height of emission and the upwind and crosswind distance of the source from the receptor. Numerical integration of the Gaussian point source equation is used to determine concentrations from the four types of line sources. Subroutines are included that estimate concentrations for multiple lane line and curved path sources, special line sources (line sources with endpoints at different heights above ground), and special curved path sources. Integration over the area source, which includes edge effects from the source region, is done by considering finite line sources perpendicular to the wind at intervals upwind from the receptor. The crosswind integration is done analytically; integration upwind is done numerically by successive approximations.

The PAL–DS model utilizes Gaussian plume-type diffusion-deposition algorithms based on analytical solutions of a gradient-transfer model. The PAL–DS model can treat deposition of both gaseous and suspended particulate pollutants in the plume since gravitational settling and dry deposition of the particles are explicitly accounted for. The analytical diffusion-deposition expressions listed in this report in the limit when pollutant settling and deposition velocities are zero, they reduce to the usual Gaussian plume diffusion algorithms in the PAL model.

a. *Recommendations for Regulatory Use*

PAL–DS can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. PAL–DS must be executed in the equivalent mode.

PAL–DS can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that PAL–DS is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data: Point-sources—emission rate, physical stack height, stack gas temperature, stack gas velocity, stack diameter, stack gas volume flow, coordinates of stack, initial σ_y and σ_z; area sources—source strength, size of area source, coordinates of S.W. corner, and height of area source; and line sources—source strength, number of lanes, height of source, coordinates of end points, initial σ_y and σ_z, width of line source, and width of median. Diurnal variations in emissions are permitted. When applicable, the settling velocity and deposition velocity are also permitted.

Meteorological data: Wind profile exponents, anemometer height, wind direction and speed, stability class, mixing height, air temperature, and hourly variations in emission rate.

Receptor data: Receptor coordinates.

c. *Output*

Printed output includes:

Hourly concentration and deposition flux for each source type at each receptor; and

Average concentration for up to 24 hrs for each source type at each receptor.

d. *Type of Model*

PAL–DS is a Gaussian plume model.

e. *Pollutant Types*

PAL–DS may be used to model non-reactive pollutants.

f. *Source-Receptor Relationships*

Up to 99 sources of each of 6 source types: Point, area, and 4 types of line sources.

Source and receptor coordinates are uniquely defined.

Unique stack height for each source.

Coordinates of receptor locations are user defined.

g. *Plume Behavior*

Briggs final plume rise equations are used.

Fumigation and downwash are not treated.

If plume height exceeds mixing height, concentrations are assumed equal to zero.

Surface concentrations are set to zero when the plume centerline exceeds mixing height.

h. *Horizontal Winds*

User-supplied hourly wind data are used.

Constant, uniform (steady-state) wind is assumed within each hour. Wind is assumed to increase with height.

i. *Vertical Wind Speeds*

Assumed equal to zero.

j. *Horizontal Dispersion*

Rural dispersion coefficients from Turner (1969) are used with no adjustments made for surface roughness.

Six stability classes are used.

Dispersion coefficients (Pasquill-Gifford) are assumed based on a 3 cm roughness height.

k. *Vertical Dispersion*

Six stability classes are used.

Rural dispersion coefficients from Turner (1969) are used; no further ajustments are made for variation in surface roughness, transport or averaging time.

Multiple reflection is handled by summation of series until the vertical standard deviation equals 1.6 times mixing height. Uniform vertical mixing is assumed thereafter.

l. *Chemical Transformation*

Not treated.

m. *Physical Removal*

PAL–DS can treat deposition of both gaseous and suspended particulates in the plume since gravitational settling and dry deposition of the particles are explicitly accounted for.

n. *Evaluation Studies*

None.

B.21 Random-Walk Advection and Dispersion Model (RADM)

References

Austin, D. I., A. W. Bealer, and W. R. Goodin, 1981. RandomWalk Advection and Dispersion Model (RADM), User's Manual. Dames & Moore, Los Angeles, CA.

Runchal, A. K., W. R. Goodin, A. W. Bealer, D. I. Austin, 1981. Technical Description of the Random-Walk Advection and Dispersion Model (RADM). Dames & Moore, Los Angeles, CA.

Availability

A magnetic tape of the computer code and the user's manual are available for a cost of $440.00 from: Mr. C. James Olsten, Dames & Moore, 445 South Figueroa Street, Suite 3500, Los Angeles, CA 90071–1665.

Abstract

RADM is a Lagrangian dispersion model which uses the randomwalk method to simulate atmospheric dispersion. The technical procedure involves tracking tracer particles having a given mass through advection by the mean wind and diffusion by the random motions of atmospheric turbulence. Turbulent movement is calculated by determining the probability distribution of particle movement for a user-defined time step. A random number between 0 and 1 is then computed to determine the distance of particle movement according to the probability distribution. A large number of particles is used to statistically represent the distribution of pollutant mass. Concentrations are calculated by summing the mass in a volume around the receptor of interest and dividing the total mass by the volume. Concentrations can be calculated for any averaging time. RADM is applicable to point and area sources.

a. *Recommendations for Regulatory Use*

There is no specific recommendation at the present time. The RADM model may be used on a case-by-case basis.

b. *Input Requirements*

Source data requirements are: Emission rate, physical stack height, stack gas exit velocity, stack inside diameter, stack gas temperature. Hourly rates may be specified.

Meteorological data requirements are: Gridded wind field including wind speed, wind direction, stability class, temperature and mixing height.

Receptor data requirements are: coordinates, ground elevation, and receptor cell dimensions.

c. *Output*

Printed output includes:

Average concentration by receptor for user-specified averaging time (concentrations are printed for each block of n hours).

Average concentrations for the entire period of the run.

d. *Type of Model*

RADM is a random-walk Lagrangian dispersion model.

e. *Pollutant Types*

RADM may be used to model inert gases and particles, and pollutants with exponential decay or formation rates.

f. *Source-Receptor Relationship*

Multiple point and area sources may be specified at independent locations.

Unique stack characteristics are used for each source.

No restriction is placed on receptor locations.

Perfect reflection at the surface is assumed for the portion not removed by dry deposition.

Particles leaving the gridded area are removed from simulation.

g. *Plume Behavior*

Briggs (1975) final plume rise equations are used.

Inversion penetration by the plume is allowed.

Fumigation may occur as mixing height rises above a plume which has penetrated an inversion.

h. *Horizontal Winds*

Wind speed, wind direction, stability class, temperature and mixing height are supplied on a gridded array.

Any wind field may be used as long as output is in correct format for RADM input.

Wind field is updated at user-specified intervals, which may be less than one hour if data are available.

Vertical wind speed profile is used based on surface roughness and stability using Monin-Obukhov length.

i. *Vertical Wind Speed*

Assumed equal to zero.

j. *Horizontal Dispersion*

Dispersion is based on diffusivity values calculated from surface roughness, stability class and Monin-Obukhov length.

Diffusivity is a function of height.

k. *Vertical Dispersion*

Dispersion is based on diffusivity values calculated from surface roughness, stability class and Monin-Obukhov length.

Diffusivity is a function of height.

l. *Chemical Transformations*

Simple exponential decay or formation is used.

m. *Physical Removal*

Dry deposition is treated.

n. *Evaluation Studies*

Runchal, A. K., A. W. Bealer, and G. S. Segal, 1978. A Completely Lagrangian Random-Walk Model for Atmospheric Dispersion. Proceedings of the Thirteenth International Colloquium on Atmospheric

Pollution, National Institute for Applications of Chemical Research, Paris; pp. 137–142.

Goodin, W. R., A. K. Runchal and G. Y. Lou, 1980. Evaluation and Application of the Random-Walk Advection and Dispersion Model (RADM). Symposium on Intermediate Range Atmospheric Transport Processes and Technology Assessment, DOE/NOAA/ORNL, Gatlinburg, TN.

Goodin, W. R., D. I. Austin and A. K. Runchal, 1980. A Model Verification and Prediction Study of $SO_2/SO_4^=$ Concentrations in the San Francisco Bay Area. Second Joint Conference on Applications of Air Pollution Meteorology, AMS/APCA, New Orleans, LA.

B.22 Reactive Plume Model (RPM–II)

Reference

D. Stewart, M. Yocke, and M–K Liu, 1981. Reactive Plume Model—RPM–II, User's Guide, EPA Publication No. EPA–600/8–81–021. U.S. Environmental Protection Agency, ESRL, Research Triangle Park, NC. (NTIS No. PB 82–230723)

Availability

The above report is available from NTIS ($16.95 for paper copy; $5.95 on microfiche). The accession number for the computer tape for RPM–II is PB83–154898, and the cost is $460.00. Requests should be sent to: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Phone: (703) 487–4650.

Abstract

The Reactive Plume Model, RPM-II, is a computerized model used for estimating short-term concentrations of primary and secondary pollutants resulting from point or area source emissions. The model is capable of simulating the complex interaction of plume dispersion and non-linear photochemistry. Two main features of the model are: (1) The horizontal resolution within the plume, which offers a more realistic treatment of the entrainment process, and (2) its flexibility with regard to choices of chemical kinetic mechanisms.

a. *Recommendations for Regulatory Use*

There is no specific recommendation at the present time. The RPM–II Model may be used on a case-by-case basis.

b. *Input Requirements*

Source data requirements are: Emission rates, name, and molecular weight of each species of pollutant emitted; ambient pressure, ambient temperature, stack height, stack diameter, stack exit velocity, stack gas temperature, and location.

Meteorological data requirements are: Wind speeds, plume widths or stability classes, photolytic rate constants, and plume depths or stability classes.

Receptor data requirements are: Downwind distances or travel times at which calculations are to be made.

Initial concentration of all species is required, and the specification of downwind ambient concentrations to be entrained by the plume is optional.

c. *Output*

Short-term concentrations of primary and secondary pollutants at either user specified time increments, or user specified downwind distances.

d. *Type of Model*

Reactive plume model.

e. *Pollutant Types*

Currently, using the Carbon Bond Mechanism (CBM–II), 35 species are simulated (68 reactions), including NO, NO_2, O_3, SO_2, $SO_4^=$, five categories of reactive hydrocarbons, secondary nitrogen compounds, organic aerosols, and radical species.

f. *Source-Receptor Relationships*

Single point source.

Single area or volume source.

Multiple sources can be simulated if they are lined up along the wind trajectory.

Predicted concentrations are obtained at a user specified time increment, or at user specified downwind distances.

g. *Plume Behavior*

Briggs (1971) plume rise equations are used.

h. *Horizontal Winds*

User specifies wind speeds as a function of time.

i. *Vertical Wind Speed*

Not treated.

j. *Horizontal Dispersion*

User specified plume widths, or user may specify stability and widths will be computed using Turner (1969).

k. *Vertical Dispersion*

User specified plume depths, or user may specify stability in which case depths will be calculated using Turner (1969). Note that vertical uniformity in plume concentration is assumed.

l. *Chemical Transformation*

The RPM–II has the flexibility of using any user input chemical kinetic mechanism. Currently it is run using the chemistry of the Carbon Bond Mechanism, CBM–II (Whitten, Killus, and Hogo, 1980). The CBM–II, as incorporated in the RPM–II, contains 35 species and 68 reactions focusing primarily on hydrocarbon-nitrogen oxides-ozone photochemistry.

m. *Physical Removal*

Not treated.

n. *Evaluation Studies*

Stewart, D. A. and M–K Liu, 1981. Development and Application of a Reactive Plume Model. Atmospheric Environment, 15: 2377–2393.

B.23 Regional Transport Model (RTM–II)

Reference

Morris, R. E., D. A. Stewart, and M–K Liu, 1982. Revised User's Guide to the Regional Transport Model—Version II. Publication No. SYSAPP–83/022, Systems Applications Inc., San Rafael, CA.

Availability

The computer code is available on magnetic tape for a cost of $100 (which includes the User's Manual) from: Systems Applications, Inc., 101 Lucas Valley Road, San Raphael, CA 94903.

Abstract

The Regional Transport Model (RTM–II) is a computer based air quality grid model whose primary use is estimating the distribution of air pollution from multiple point sources and area sources at large distances (on the scale of several hundred to a thousand kilometers). RTM–II offers significant advantages over other long-range transport models because it is a quasi-three dimensional hybrid (grid plus Lagrangian puff) approach to the solution of the advectiondiffusion equation. Furthermore, its formulation allows the treatment of spatially and temporally varying wind, mixing depths, diffusivity, and transformation rate fields. It is also capable of treating spatially varying surface depletion processes. While the modeling concept is capable of predicting concentration distributions of many pollutant species (e.g., NO_x, CO, TSP, etc.), the most notable applications of the model to date focus on the long-range transport and transformation of SO_2 and sulfates.

a. *Recommendations for Regulatory Use*

There is no specific recommendation at the present time. The RTM Model may be used on a case-by-case basis.

b. *Input Requirements*

Source data requirements are: Major point source SO_2 and primary sulfate emissions, including stack height, diameter, exit velocity, exit temperature, and hourly emission factors; area source SO_2 and primary $SO_4^=$ emissions in gridded format.

Meteorological data requirements are: Gridded u, v wind fields at user specified update interval (model configured for separate wind fields in each of two layers), derived from twice daily radiosonde data, time variation linear between a maximum convectively driven boundary layer and a minimum mechanically driven boundary layer, spatial interpolation by an inverse distance weighted objective scheme; gridded hourly precipitation fields determined either by averaging precipitation rate of all stations in grid (if high density), or by inverse distance weighted interpolation (if low density).

Other data requirements are: Parameter file, containing region definition, starting time, output and averaging time intervals, region top specifications, and various operational flags; horizontal diffusivity fields calculated from wind fields; land use type file; deposition velocities and roughness length determined internally from tabulated values associated with land use types; initial conditions and boundary conditions for both layers (boundary conditions may be time varying).

c. *Output*

Printed output includes:

Diagnostic information.

Instantaneous SO_2 and sulfate concentration fields for lower and upper layers at pre-specified time intervals.

Average SO_2 and sulfate concentration fields for upper and lower layer, over pre-specified time intervals. Accumulated dry

and wet deposition for each species over preselected time intervals.

d. *Type of Model*

RTM–II is a hybrid Eulerian grid and Lagrangian puff model.

e. *Pollutant Types*

RTM–II is configured for SO_2 and sulfate only. Primary sulfate emissions may be included.

f. *Source Receptor Relationships*

Area sources and minor point sources are specified at each grid within the modeling domain.

Up to 500 major point sources (modeled with the Gaussian puff submodel) are allowed.

Grid average concentration and deposition totals are provided at each grid within the modeling domain (dry deposition for lower layer grid only). All lower grid average concentration values are assumed to be representative of ground-level receptors.

g. *Plume Behavior*

Plume rise (Briggs, 1971) is calculated for all major point sources regardless of whether they are treated in the Gaussian puff submodel.

h. *Horizontal Winds*

Gridded u, v wind fields are used at a user specified update interval for each layer.

Gaussian puff submodel tracks puff centroids horizontally at user specified time intervals.

i. *Vertical Wind Speed*

Considered implicitly if convergent or divergent winds are provided.

j. *Horizontal Dispersion*

Plume dispersion is based on σ_y differentials derived from a power law fit to Turner (1969) dispersion curves. Variable stabilities within adjacent cells are considered.

Horizontal eddy diffusivities are proportional to the wind field deformation and are calculated from the gridded wind fields as ancilliary input. Maximum and minimum constraints are imposed on the magnitude of the diffusivities.

k. *Vertical Dispersion*

Plume dispersion is based on σ_z differentials derived from a power law fit to Turner (1969) dispersion curves. Variable stabilities within adjacent cells are considered.

Vertical dispersion across the mixed layer-surface layer interface is considered when calculating pollutant deposition.

l. *Chemical Transformation*

Linear SO_2 oxidation is treated. Rate constant is diurnally and latitudinally variable. A minimum oxidation rate constant is specified to account for heterogeneous oxidation during the nighttime.

m. *Physical Removal*

Dry deposition of SO_2 and sulfate is treated. Precipitation scavenging of SO_2 (reversible) and sulfate (irreversible) is treated.

n. *Evaluation Studies*

Stewart, D. A., R. E. Morris, M-K Liu, and D. Henderson, 1983. Evaluation of an Episodic Regional Transport Model for a Multiple Day Episode. *Atmospheric Environment*, 17: 1225–1252.

B.24 SHORTZ

Reference

Bjorklund, J. R., and J. F. Bowers, 1982. User's Instructions for the SHORTZ and LONGZ Computer Programs, Volumes I and II. EPA Publication No. EPA–903/9–82–004a and b. U.S. Environmental Protection Agency, Region III, Philadelphia, PA.

Availability

This model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from: Computer Products, National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Phone: (703) 487–4650.

Abstract

SHORTZ utilizes the steady state bivariate Gaussian plume formulation for both urban and rural areas in flat or complex terrain to calculate ground-level ambient air concentrations. It can calculate 1-hour, 2-hour, 3-hour etc. average concentrations due to emissions from stacks, buildings and area sources for up to 300 arbitrarily placed sources. The output consists of total concentration at each receptor due to emissions from each userspecified source or group of sources, including all sources. If the option for gravitational settling is invoked, analysis cannot be accomplished in complex terrain without violating mass continuity.

a. *Recommendations for Regulatory Use*

SHORTZ can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. SHORTZ must be executed in the equivalent mode.

SHORTZ can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that SHORTZ is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: For point, building or area sources, location, elevation, total emission rate (optionally classified by gravitational settling velocity) and decay coefficient; for stack sources, stack height, effluent temperature, effluent exit velocity, stack radius (inner), actual volumetric flow rate, and ground elevation (optional); for building sources, height, length and width, and orientation; for area sources, characteristic vertical dimension, and length, width and orientation.

Meteorological data requirements are: Wind speed and measurement height, wind profile exponents, wind direction, standard deviations of vertical and horizontal wind directions, (i.e., vertical and lateral turbulent intensities), mixing height, air temperature, and vertical potential temperature gradient.

Receptor data requirements are: coordinates, ground elevation.

c. *Output*

Printed output includes: Total concentration due to emissions from user-specified source groups, including the combined emissions from all sources (with optional allowance for depletion by deposition).

d. *Type of Model*

SHORTZ is a Gaussian plume model.

e. *Pollutant Types*

SHORTZ may be used to model primary pollutants. Settling and deposition of particulates are treated.

f. *Source-Receptor Relationships*

User specified locations for sources and receptors are used.

Receptors are assumed to be at ground level.

g. *Plume Behavior*

Plume rise equations of Bjorklund and Bowers (1982) are used.

Stack tip downwash (Bjorklund and Bowers, 1982) is included.

All plumes move horizontally and will fully intercept elevated terrain.

Plumes above mixing height are ignored.

Perfect reflection at mixing height is assumed for plumes below the mixing height.

Plume rise is limited when the mean wind at stack height approaches or exceeds stack exit velocity.

Perfect reflection at ground is assumed for pollutants with no settling velocity.

Zero reflection at ground is assumed for pollutants with finite settling velocity.

Tilted plume is used for pollutants with settling velocity specified. Buoyancy-induced dispersion (Briggs, 1972) is included.

h. *Horizontal Winds*

Winds are assumed homogeneous and steady-state.

Wind speed profile exponents are functions of both stability class and wind speed. Default values are specified in Bjorklund and Bowers (1982).

i. *Vertical Wind Speed*

Vertical winds are assumed equal to zero.

j. *Horizontal Dispersion*

Horizontal plume size is derived from input lateral turbulent intensities using adjustments to plume height, and rate of plume growth with downwind distance specified in Bjorklund and Bowers (1982).

k. *Vertical Dispersion*

Vertical plume size is derived from input vertical turbulent intensities using adjustments to plume height and rate of plume growth with downwind distance specified in Bjorklund and Bowers (1982).

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Time constant is input by the user.

m. *Physical Removal*

Settling and deposition of particulates are treated.

n. *Evaluation Studies*

Bjorklund, J. R., and J. F. Bowers, 1982. User's Instructions for the SHORTZ and LONGZ Computer Programs. EPA Publication No. EPA–903/9–82004. EPA Environmental Protection Agency, Region III, Philadelphia, PA.

Wackter, D., and R. Londergan, 1984. Evaluation of Complex Terrain Air Quality Simulation Models. EPA Publication No. EPA–450/4–84–017. U.S. Environmental Protection Agency, Research Triangle Park, NC.

B.25 Simple Line-Source Model (GMLINE)

Reference

Chock, D. P., 1980. User's Guide for the Simple Line-Source Model for Vehicle Exhaust Dispersion Near a Road, Environmental Science Department, General Motors Research Laboratories, Warren, MI.

Availability

Copies of the above reference are available without charge from: Dr. D. P. Chock, Environmental Science Department, General Motors Research Laboratories, General Motors Technical Center, Warren, MI 48090.

The User's Guide contains the short algorithm of the model.

Abstract

GMLINE is a simple steady-state Gaussian plume model which can be used to determine hourly (or half-hourly) averages of exhaust concentrations within 100m from a roadway on a relatively flat terrain. The model allows for plume rise due to the heated exhaust, which can be important when the crossroad wind is very low. It also utilizes a new set of vertical dispersion parameters which reflects the influence of traffic-induced turbulence.

a. *Recommendations for Regulatory Use*

GMLINE can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. GMLINE must be executed in the equivalent mode.

GMLINE can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in Section 3.2, that GMLINE is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: Emission rate per unit length per lane, the number of lanes on each road, distances from lane centers to the receptor, source and receptor heights.

Meteorological data requirements are: Buoyancy flux, ambient stability condition, ambient wind and its direction relative to the road.

Receptor data requirements are: Distance and height above ground.

c. *Output*

Printed output includes: Hourly or (half-hourly) concentrations at the receptor due to exhaust emission from a road (or a system of roads by summing the results from repeated model applications).

d. *Type of Model*

GMLINE is a Gaussian plume model.

e. *Pollutant Types*

GMLINE can be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

GMLINE treats arbitrary location of line sources and receptors.

g. *Plume Behavior*

Plume-rise formula adequate for a heated line source is used.

h. *Horizontal Winds*

GMLINE uses user-supplied hourly (or half-hourly) ambient wind speed and direction. The wind measurements are from a height of 5 to 10m.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Dispersion Parameters*

Horizontal dispersion parameter is not used.

k. *Vertical Dispersion*

A vertical dispersion parameter is used which is a function of stability and wind-road angle. Three stability classes are used: unstable, neutral and stable. The parameters take into account the effect of traffic-generated turbulence (Chock, 1980).

l. *Chemical Transformation*

Not treated.

m. *Physical Removal*

Not treated.

n. *Evaluation Studies*

Chock, D. P., 1978. A Simple Line-Source Model for Dispersion Near Roadways. *Atmospheric Environment*, 12: 823–829.

Sistla, G., P. Samson, M. Keenan, and S. T. Ras, 1979. A Study of Pollutant Dispersion Near Highways. *Atmospheric Environment*, 13: 669–685.

B.26 Texas Climatological Model (TCM–2)

Reference

Staff of the Texas Air Control Board, 1980. User's Guide to the TEXAS CLIMATOLOGICAL MODEL (TCM). Texas Air Control Board, Permits Section, 6330 Highway 290 East, Austin, TX.

Availability

The TCM–2 model is available from the Texas Air Control Board at the following cost:

User's Manual only—$20.00
User's Manual and Model (Magnetic Tape)—$80.00

Requests should be directed to: Data Processing Division, Texas Air Control Board, 6330 Highway 290 East, Austin, TX 78723.

Abstract

TCM is a climatological steady-state Gaussian plume model for determining long-term (seasonal or annual arithmetic) average pollutant concentrations of non-reactive pollutants.

a. *Recommendations for Regulatory Use*

TCM can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. TCM must be executed in the equivalent mode.

TCM can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that TCM is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: Point source coordinates emission rates (by pollutant), stack height, stack diameter, stack gas exit velocity, stack gas temperature; area source coordinates (southwest corner), size, emission rate.

Meteorological data requirements are: Stability wind rose and average temperature.

Receptor data requirements are: Size and spacing of the rectangular receptor grid.

c. *Output*

Printed output includes:

Period average concentrations listed, displayed in map format, or punched on cards at the user's option.

Culpability list option provides the contributions of the five highest contributors at each receptor.

Maximum concentration option provides the maximum concentration for each scenario (run).

d. *Type of Model*

TCM is a Gaussian plume model.

e. *Pollutant Types*

TCM may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

Arbitrary location of point sources and area sources are treated.

Arbitrary location and spacing of rectangular grid of receptors are used. (Area source grid is best defined in terms of the receptor grid, so that the receptors fall in the center of the area source).

Receptors located in simple terrain may be modeled.

g. *Plume Behavior*

Briggs (1975) plume rise equations, including momentum rise, are used for point [illegible].

Two-thirds power law is used when transitional rise option is selected. Flares are treated.

h. *Horizontal Winds*

Characteristic wind speed is calculated for each direction-stability class combination.

This characteristic speed is the inverse of the average inverse speed for the stability-wind direction combination.

Wind speed is adjusted to stack height by a power law using exponents of 0.10, 0.15, 0.20, 0.25, 0.30, and 0.30 for stabilities A through F, respectively.

i. *Vertical Wind Speed*

Vertical wind speed is assumed to be zero.

j. *Horizontal Dispersion*

Uniform distribution within each 22.5 degree sector is assumed.

k. *Vertical Dispersion*

Dispersion parameters for point sources are fit to Turner (1969); for area sources in the urban mode the fit is to Gifford and Hanna (1970).

Seven stability classes are used.

Pasquill A through F are treated, with daytime "D" and nighttime "D" given separately.

In the urban mode, E and F stability classes are treated as D-night. Perfect reflection at the ground is assumed.

l. *Chemical Transformation*

Chemical transformations are treated using exponential decay. Half-life is input by the user.

m. *Physical Removal*

Physical removal is treated using exponential decay. Half-life is input by the user.

n. *Evaluation Studies*

Londergan, R. J., D. H. Minott, D. J. Wachter and R. R. Fizz, 1983. Evaluation of Urban Air Quality Simulation Models. EPA Publication No. EPA–450/4–83–020. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Durrenberger, C. S., B. A. Braberg, and K. Zimmermann, 1983. Development of a Protocol to be Used for Dispersion Model Comparison Studies. Presented at the 76th Annual Meeting of the Air Pollution Control Association, Atlanta, GA.

B.27 Texas Episodic Model (TEM–8)

Reference

Staff of the Texas Air Control Board, 1979. User's Guide to the TEXAS EPISODIC MODEL. Texas Air Control Board, Permits Section, 6330 Highway 290 East, Austin, TX.

Availibility

The TEM–8 model is available from the Texas Air Control Board at the following costs:

User's Manual only—$20.00
User's Manual and Model (Magnetic Tape)—$80.00

Requests should be directed to: Data Processing Division, Texas Air Control Board, 6330 Highway 290 East, Austin, TX 78723.

Abstract

TEM is a short-term, steady-state Gaussian plume model for determining short-term concentrations of non-reactive pollutants.

a. *Recommendations for Regulatory Use*

TEM can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. TEM must be executed in the equivalent mode.

TEM can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that TEM is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements*

Source data requirements are: Locations, average emission rates and heights of emissions for both point and area sources; stack gas temperature, stack gas exit velocity, and stack inside diameter for point sources for plume rise calculations.

Meteorological data requirements are: Hourly surface weather data from the EPA meteorological preprocessor program. Preprocessor output includes hourly stability class, wind direction, wind speed, temperature, and mixing height. Any combination of hourly meteorological data up to 24 hours may be used, (e.g., 1, 3, 5, 8, 24 hours).

Receptor requirements are: Size, spacing and location of rectangular grid of receptors.

c. *Output*

Printed output includes: concentration list;

Spatial array (concentrations displayed as on a map);

Punched cards of the concentration list;

Culpability list (percent contributions) of the five highest contributors to each receptor;

Maximum concentration; and

Point source list.

d. *Type of Model*

TEM is a Gaussian plume model.

e. *Pollutant Types*

TEM can be used to model non-reactive pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationship*

Arbitrary locations of point sources and area sources are treated.

Arbitrary location and spacing of rectangular grid of receptors is treated. Area source grid is best defined in terms of the receptor grid so that the receptors fall in the centers of the area sources.

Receptors located in simple terrain may be modeled.

g. *Plume Behavior*

Briggs (1975) plume rise equations are used, including momentum rise, for point sources.

Transitional rise is calculated.

Stack-tip downwash may be evaluated.

h. *Horizontal Winds*

Wind speeds are adjusted to release height by power law formula, using exponents of 0.10, 0.15, 0.20, 0.25, 0.30 and 0.35 for stabilities A through F, respectively.

Steady-state wind is assumed.

i. *Vertical Wind Speed*

Vertical wind is assumed equal to zero.

j. *Horizontal Dispersion*

Gaussian plume coefficients are fitted to Turner (1969). The Turner curves are treated as 10-minute averages and the coefficients are adjusted to represent 30-minute or hourly as appropriate.

In the urban mode, stable cases are shifted to neutral nighttime (D-night) conditions and urban mixing heights are used.

k. *Vertical Dispersion*

Dispersion parameters for point sources are fit to Turner (1969); for area sources, in the urban mode, the fit is to Gifford and Hanna (1970).

Total reflection of the plume at the ground is assumed.

In the urban mode, E and F stability classes are treated as D-nighttime.

l. *Chemical Transformation*

Chemical transformation is treated using exponential decay. Half-life is input by the user.

m. *Physical Removal*

Physical removal is treated using exponential decay. Half-life is input by the user.

n. *Evaluation Studies*

Londergan, R., D. Minott, D. Wachter, T. Kincaid and D. Bonitata, 1983. Evaluation of Rural Air Quality Simulation Models. EPA–450/4–83–003, Environmental Protection Agency, Research Triangle Park, NC.

Durrenberger, C. J., B. A. Broberg, and K. Zimmermann, 1983. Development of a Protocol to be Used for Dispersion Model Comparison Studies. Presented at the 76th Annual Meeting of the Air Pollution Control Association, Atlanta, GA.

B.28 AVACTA II

Reference

Zannetti, P., G. Carboni and R. Lewis, 1985. AVACTA II User's Guide (Release 3). AeroVironment, Inc., Technical Report AV–OM–85/520.

Availability

A magnetic tape copy of the FORTRAN coding and the user's guide are available at a cost of $2,500 (non-profit organization) or $3,500 (other organizations) from: AeroVironment, Inc., 825 Myrtle Avenue, Monrovia, CA 91016. Phone: (818) 357–9983.

Abstract

The AVACTA II model is a Gaussian model in which atmospheric dispersion phenomena are described by the evolution of plume elements, either segments or puffs. The model can be applied for short time (e.g., one day) simulations in both transport and calm conditions.

The user is given flexibility in defining the computational domain, the three-dimensional meteorological and emission input, the receptor locations, the plume rise formulas, the sigma formulas, etc. Without explicit user's specifications, standard default values are assumed.

AVACTA II provides both concentration fields on the user specified receptor points, and dry/wet deposition patterns throughout the domain. The model is particularly oriented to the simulation of the dynamics and transformation of sulfur species (SO_2 and $SO_4^=$), but can handle virtually any pair of primary-secondary pollutants.

a. *Recommendations for Regulatory Use*

AVACTA II can be used if it can be demonstrated to estimate concentrations equivalent to those provided by the preferred model for a given application. AVACTA II must be executed in the equivalent mode.

AVACTA II can be used on a case-by-case basis in lieu of a preferred model if it can be demonstrated, using the criteria in section 3.2, that AVACTA II is more appropriate for the specific application. In this case the model options/modes which are most appropriate for the application should be used.

b. *Input Requirements* (all time-varying)

A time-varying input is required at each computational step. Only those data which have changed need to be input by the user.

Source data requirements are: Coordinates, emission rates of primary and secondary pollutants, initial plume sigmas (for non-point sources), exit temperature, exit velocity, stack inside diameter.

Meteorological data requirements are: Surface wind measurements, wind profiles (if available), atmospheric stability profiles, mixing heights.

Receptor data requirements are: Receptor coordinates.

Other data requirements: Coordinates of the computational domain, grid cell specification, terrain elevations, user's computational and printing options.

c. *Output*

The model's outpout is provided according to user's printing flags. Hourly, 3-hour and 24-hour concentration averages are computed, together with highest and highest-second-highest concentration values. Both partial and total concentrations are provided.

d. *Type of Model*

AVACTA II is Gaussian segment/puff model.

e. *Pollutant Types*

AVACTA II can handle any couple of primary-secondary pollutants (e.g., SO_2 and SO_4=).

f. *Source Receptor Relationship*

The AVACTA II approach maintains the basic Gaussian formulation, but allows a numerical simulation of both nonstationary and nonhomogeneous meteorological conditions. The emitted pollutant material is divided into a sequence of "elements," either segments or puffs, which are connected together but whose dynamics are a function of the local meteorological conditions. Since the meteorological parameters vary with time and space, each element evolves according to the different meteorological conditions encountered along its trajectory.

AVACTA II calculates the partial contribution of each source in each receptor during each interval. The partial concentration is the sum of the contribution of all existing puffs, plus that of the closest segment.

g. *Plume Behavior*

The user can select the following plume rise formulas:

Briggs (1969, 1971, 1972)
CONCAWE (Briggs, 1975)
Lucas-Moore (Briggs, 1975)
User's function, i.e., a subroutine supplied by the user

With cold plumes, the program uses a special routine for the computation of the jet plume rise. The user can also select several computational options that control plume behavior in complex terrain and its total/partial reflections.

h. *Horizontal Winds*

A 3D mass-consistent wind field is optionally generated.

i. *Vertical Wind Speed*

A 3D mass-consistent wind field is optionally generated.

j. *Horizontal Dispersion*

During each step, the sigmas of each element are increased. The user can select the following sigma functions:

Pasquill-Gifford-Turner (in the functional form specified by Green et al., 1980)
Brookhaven (Gifford, 1975)
Briggs, open country (Gifford, 1975)
Briggs, urban, i.e., McElory-Pooler, (Gifford, 1975)
Irwin (1979)
LO–LOCAT (MacCready et al., 1974)
User-specified function, by points
User-specified function, with a user's subroutine

The virtual distance/age concept is used for incrementing the sigmas at each time step.

k. *Vertical Dispersion*

During each step, the sigmas of each element are increased. The user can select the following sigma functions:

Pasquill-Gifford-Turner (in the functional form specified by Green et al., 1980)
Brookhaven (Gifford, 1975)
Briggs, open country (Gifford, 1975)
Briggs, urban, i.e., McElroy-Pooler, (Gifford, 1975)
LO–LOCAT (MacCready et al., 1974)
User-specified function, with a user's subroutine

The virtual distance/age concept is used for incrementing the sigmas at each time step.

l. *Chemical Transformation*

First order chemical reactions (primary-to-secondary pollutant).

m. *Physical Removal*

First order dry and wet deposition schemes.

n. *Evaluation Studies*

Zannetti P., G. Carboni and A. Ceriani, 1985. AVACTA II Model Simulations of Worst-Case Air Pollution Scenarios in Northern Italy. 15th International Technical Meeting on Air Pollution Modeling and Its Application, St. Louis, Missouri, April 15–19.

B.29 Shoreline Dispersion Model (SDM)

Reference

PEI Associates, 1988. User's Guide to SDM—A Shoreline Dispersion Model. EPA Publication No. EPA–450/4–88–017. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS No. PB 89–164305)

Availability

The user's guide is available from the National Technical Information Service. The model code is available on the Support Center for Regulatory Air Models Bulletin Board System (see page B–1).

Abstract

SDM is a hybrid multipoint Gaussian dispersion model that calculates source impact for those hours during the year when fumigation events are expected using a special fumigation algorithm and the MPTER regulatory model for the remaining hours (see Appendix A).

a. *Recommendations for Regulatory Use*

SDM may be used on a case-by-case basis for the following applications:

- Tall stationary point sources located at a shoreline of any large body of water;
- Rural or urban areas;
- Flat terrain;
- Transport distances less than 50 km;
- 1-hour to 1-year averaging times.

b. *Input Requirements*

Source data: Location, emission rate, physical stack height, stack gas exit velocity, stack inside diameter, stack gas temperature and shoreline coordinates.

Meteorological data: Hourly values of mean wind speed within the Thermal Internal Boundary Layer (TIBL) and at stack height; mean potential temperature over land and over water; over water lapse rate; and surface sensible heat flux. In addition to these meteorological data, SDM access standard NWS surface and upper air meteorological data through the RAMMET preprocessor.

Receptor data: coordinates for each receptor.

c. *Output*

Printed output includes the MPTER model output as well as: special shoreline fumigation applicability report for each day and source; high-five tables on the standard output with "F" designation next to the concentration if that averaging period includes a fumigation event.

d. *Type of Model*

SDM is hybrid Gaussian model.

e. *Pollutant Types*

SDM may be used to model primary pollutants. Settling and deposition are not treated.

f. *Source-Receptor Relationships*

SDM applies user-specified locations of stationary point sources and receptors. User input stack height, shoreline orientation and source characteristics for each source. No topographic elevation is input; flat terrain is assumed.

g. *Plume Behavior*

SDM uses Briggs (1975) plume rise for final rise. SDM does not treat stack tip or building downwash.

h. *Horizontal Winds*

Constant, uniform (steady-state) wind is assumed for an hour. Straight line plume transport is assumed to all downwind distances. Separate wind speed profile exponents (EPA, 1980) for both rural and urban cases are assumed.

i. *Vertical Wind Speed*

Vertical wind speed is assumed equal to zero.

j. *Horizontal Dispersion*

For the fumigation algorithm coefficients based on Misra (1980) and Misra and McMillan (1980) are used for plume transport in stable air above TIBL and based on Lamb (1978) for transport in the unstable air below the TIBL. An effective horizontal dispersion coefficient based on Misra and Onlock (1982) is used. For nonfumigation periods, algorithms contained in the MPTER model are used (see Appendix A).

k. *Vertical Dispersion*

For the fumigation algorithm, coefficients based on Misra (1980) and Misra and McMillan (1980) are used.

l. *Chemical Transformation*

Chemical transformation is not included in the fumigation algorithm.

m. *Physical Removal*

Physical removal is not explicitly treated.

n. *Evaluation Studies*

Environmental Protection Agency, 1987. Analysis and Evaluation of Statistical Coastal Fumigation Models. EPA Publication No. EPA–450/4–87–002. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS PB 87–175519)

B.30 WYNDvalley Model

Reference

Harrison, Halstead, 1992. "A User's Guide to WYNDvalley 3.11, an Eulerian-Grid Air-Quality Dispersion Model with Versatile Boundaries, Sources, and Winds," WYNDsoft Inc., Mercer Island, WA.

Availability

Copies of the user's guide and the executable model computer codes are available at a cost of $295.00 from: WYNDsoft, Incorporated, 6333 77th Avenue SE., Mercer Island, WA 98040. Phone: (206) 232–1819.

Abstract

WYNDvalley 3.11 is a multi-layer (up to five vertical layers) Eulerian grid dispersion model that permits users flexibility in defining borders around the areas to be modeled, the boundary conditions at these borders, the intensities and locations of emissions sources, and the winds and diffusivities that affect the dispersion of atmospheric pollutants. The model's output includes gridded contour plots of pollutant concentrations for the highest brief episodes (during any single time step), the highest and second-highest 24-hour averages, averaged dry and wet deposition fluxes, and a colored "movie" showing evolving dispersal of pollutant concentrations, together with temporal plots of the concentrations at specified receptor sites and statistical inference of the probabilities that standards will be exceeded at those sites. WYNDvalley is implemented on IBM® compatible microcomputers, with interactive data input and color graphics display.

a. *Recommendations for Regulatory Use*

WYNDvalley may be used on a case-by-case basis to estimate concentrations during valley stagnation periods of 24 hours or longer. Recommended inputs are listed below.

Variable Recommended Value

Horizontal cell dimension 250 to 500 meters
Vertical layers 3 to 5
Layer depth 50 to 100 meters
Background (internal to model)
Zero (background should be added externally to model estimates)
Lateral meander velocity default
Diffusivities default
Ventilation parameter (upper default boundary condition)
Dry deposition velocity zero (site-specific)
Washout ratio zero (site-specific)

b. *Input Requirements*

Input data, including model options, modeling domain boundaries, boundary conditions, receptor locations, source locations, and emission rates, may be entered interactively, or through existing template files from a previous run. Meteorological data, including wind speeds, wind directions, rain rates (optionally, for wet deposition calculations), and time of day and year, may be of arbitrary time increment (usually an hour) and are entered into the model through an external meteorological data file. Optionally, users may specify diffusivities and upper boundary conditions for each time increment. Source emission rates may be constant or modulated on a daily, weekly, and/or seasonal basis.

c. *Output*

Output from WYNDvalley includes gridded contour maps of the highest pollutant concentrations at each time step and the highest and second-highest 24-hour average concentrations. Output also includes the deposition patterns for wet, dry, and total fluxes of the pollutants to the surface, integrated over the simulation period. A running "movie" of the concentration patterns is displayed on the screen (with optional printout) as they evolve during the simulation. Output files include tables of daily-averaged pollutant concentrations at every modeled grid cell, and of hourly concentrations at up to eight specified receptors. Statistical analyses are performed on the hourly and daily data to estimate the probabilities that specified levels will be exceeded more than once during an arbitrary number of days with similar weather.

d. *Type of Model*

WYNDvalley is a three dimensional Eulerian grid model.

e. *Pollutant Types*

WYNDvalley may be used to model any inert pollutant.

f. *Source-Receptor Relationships*

Source and receptors may be located anywhere within the user-defined modeling domain. All point and area sources, or portions of an area source, within a given grid cell are summed to define a representative emission rate for that cell. Concentrations are calculated for each and every grid cell in the modeling domain. Up to eight grid cells may be selected as receptors, for which time histories of concentration and deposition fluxes are determined, and probabilities of exceedance are calculated.

g. *Plume Behavior*

Emissions for buoyant point sources are placed by the user in a grid cell which best reflects the expected effective plume height during stagnation conditions. Five vertical layers are available to the user.

h. *Horizontal Winds*

During each time step in the model, the winds are assumed to be uniform throughout the modeling domain. Numerical diffusion is minimized in the advection algorithm. To account for terrain effects on winds and dispersion, an ad hoc algorithm is employed in the model to distribute concentrations near boundaries.

i. *Vertical Wind Speed*

Winds are assumed to be constant with height.

j. *Horizontal Dispersion*

Horizontal eddy diffusion coefficients may be entered explicitly by the user at every time step. Alternatively, a default algorithm may be invoked to estimate these coefficients from the wind velocities and their variances.

k. *Vertical Dispersion*

Vertical eddy diffusion coefficients and a top-of-model boundary condition may be entered explicitly by the user at every time step. Alternatively, a default algorithm may be invoked to estimate these coefficients from the horizontal wind velocities and their variances, and from an empirical time-of-day correction derived from temperature gradient measurements and Monin-Obukhov similarities.

l. *Chemical Transformation*

Chemical transformation is not explicitly treated by WYNDvalley.

m. *Physical Removal*

WYNDvalley optionally simulates both wet and dry deposition. Dry deposition is proportional to concentration in the lowest layer, while wet deposition is proportional to rain rate and concentration in each layer. Appropriate coefficients (deposition velocities and washout ratios) are input by the user.

n. *Evaluation Studies*

Harrison, H., G. Pade, C. Bowman and R. Wilson, 1990. Air Quality During Stagnations: A Comparison of RAM and WYNDvalley with PM–10 Measurements at Five Sites. *Journal of the Air & Waste Management Association*, 40: 47–52.

Yoshida, C., 1990. A Comparison of WYNDvalley Versions 2.12 and 3.0 with PM–10 Measurements in Six Cities in the Pacific Northwest, Lane Regional Air Pollution Authority, Springfield, OR.

Maykut, N. et al., 1990. Evaluation of the Atmospheric Deposition of Toxic Contaminants to Puget Sound, State of Washington, Puget Sound Water Quality Authority, Seattle, WA.

B.31 Dense Gas Dispersion Model (DEGADIS)

Reference

Environmental Protection Agency, 1989. User's Guide for the DEGADIS 2.1—Dense Gas Dispersion Model. EPA Publication No. EPA–450/4–89–019. U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. (NTIS No. PB 90–213893)

Availability

The model code is only available on the Support Center for Regulatory Air Models Bulletin Board System (see page B–1).

Abstract

DEGADIS 2.1 is a mathematical dispersion model that can be used to model the transport of toxic chemical releases into the atmosphere. Its range of applicability includes continuous, instantaneous, finite duration, and time-variant releases; negatively-buoyant and neutrally-buoyant releases; ground-level, low-momentum area releases; ground-level or elevated upwardly-directed stack releases of gases or aerosols. The model simulates only one set of meteorological conditions, and therefore should not be considered applicable over time periods much longer than 1 or 2 hours. The simulations are carried out over flat, level, unobstructed terrain for which the characteristic surface roughness is not a significant fraction of the depth of the dispersion layer. The model does not characterize the density of aerosol-type releases; rather, the user must assess that independently prior to the simulation.

a. *Recommendations for Regulatory Use*

DEGADIS can be used as a refined modeling approach to estimate short-term ambient concentrations (1-hour or less averaging times) and the expected area of exposure to concentrations above specified threshold values for toxic chemical releases. It is especially useful in situations where density effects are suspected to be important and where screening estimates of ambient concentrations are above levels of concern.

b. *Input Requirements*

Data may be input directly from an external input file or via keyboard using an interactive program module. The model is not set up to accept real-time meteorological data or convert units of input values. Chemical property data must be input by the user. Such data for a few selected species are available within the model. Additional data may be added to this data base by the user.

Source data requirements are: Emission rate and release duration; emission chemical and physical properties (molecular weight, density vs. concentration profile in the case of aerosol releases, and contaminant heat capacity in the case of a nonisothermal gas release; stack parameters (i.e., diameter, elevation above ground level, temperature at release point).

Meteorological data requirements are: Wind speed at designated height above ground, ambient temperature and pressure, surface roughness, relative humidity, and ground surface temperature (which in most cases can be adequately approximated by the ambient temperature).

Receptor data requirements are: Averaging time of interest, above-ground height of receptors, and maximum distance between receptors (since the model computes downwind receptor distances to optimize model performance, this parameter is used only for nominal control of the output listing, and is of secondary importance). No indoor concentrations are calculated by the model.

c. *Output*

Printed output includes in tabular form:

- Listing of model input data;
- Plume centerline elevation, mole fraction, concentration, density, and temperature at each downwind distance;
- σ_y and σ_z values at each downwind distance;
- Off-centerline distances to 2 specified concentration values at a specified receptor height at each downwind distance (these values can be used to draw concentration isopleths after model execution);
- Concentration vs. time histories for finite-duration releases (if specified by user).

The output print file is automatically saved and must be sent to the appropriate printer by the user after program execution.

No graphical output is generated by the current version of this program.

d. *Type of Model*

DEGADIS estimates plume rise and dispersion for vertically-upward jet releases using mass and momentum balances with air entrainment based on laboratory and field-scale data. These balances assume Gaussian similarity profiles for velocity, density, and concentration within the jet. Ground-level denser-than-air phenomena is treated using a power law concentration distribution profile in the vertical and a hybrid top hat-Gaussian concentration distribution profile in the horizontal. A power law specification is used for the vertical wind profile. Ground-level cloud slumping phenomena and air entrainment are based on laboratory measurements and field-scale observations.

e. *Pollutant Types*

Neutrally- or negatively-buoyant gases and aerosols. Pollutants are assumed to be non-reactive and non-depositing.

f. *Source-Receptor Relationships*

Only one source can be modeled at a time.

There is no limitation to the number of receptors; the downwind receptor distances are internally-calculated by the model. The DEGADIS calculation is carried out until the plume centerline concentration is 50% below the lowest concentration level specified by the user.

The model contains no modules for source calculations or release characterization.

g. *Plume Behavior*

Jet/plume trajectory is estimated from mass and momentum balance equations. Surrounding terrain is assumed to be flat, and stack tip downwash, building wake effects, and fumigation are not treated.

h. *Horizontal Winds*

Constant logarithmic velocity profile which accounts for stability and surface roughness is used.

The wind speed profile exponent is determined from a least squares fit of the logarithmic profile from ground level to the wind speed reference height. Calm winds can be simulated for ground-level low-momentum releases.

Along-wind dispersion of transient releases is treated using the methods of Colenbrander (1980) and Beals (1971).

i. *Vertical Wind Speed*

Not treated.

j. *Horizontal Dispersion*

When the plume centerline is above ground level, horizontal dispersion coefficients are based upon Turner (1969) and Slade (1968) with adjustments made for averaging time and plume density.

When the plume centerline is at ground level, horizontal dispersion also accounts for entrainment due to gravity currents as parameterized from laboratory experiments.

k. *Vertical Dispersion*

When the plume centerline is above ground level, vertical dispersion coefficients are based upon Turner (1969) and Slade (1968). Perfect ground reflection is applied.

In the ground-level dense-gas regime, vertical dispersion is also based upon results from laboratory experiments in density-stratified fluids.

l. *Chemical Transformation*

Not specifically treated.

m. *Physical Removal*

Not treated.

n. *Evaluation Studies*

Spicer, T. O. and J. A. Havens, 1986. Development of Vapor Dispersion Models for Nonneutrally Buoyant Gas Mixtures—Analysis of USAF/N_2O_4 Test Data. USAF Engineering and Services Laboratory, Final Report ESL–TR–86–24.

Spicer, T.O. and J.A. Havens, 1988. Development of Vapor Dispersion Models for Nonneutrally Buoyant Gas Mixtures—Analysis of TFI/NH_3 Test Data. USAF Engineering and Services Laboratory, Final Report.

o. *Operating Information*

The model requires either a VAX computer or an IBM®—compatible PC for its execution.

The model currently does not require supporting software. A FORTRAN compiler is required to generate program executables in the VAX computing environment. PC executables are provided within the source code; however, a PC FORTRAN compiler may be used to tailor a PC executable to the user's PC environment.

B. KEY References

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Appendix C to Appendix W of Part 51—Example Air Quality Analysis Checklist

C.0 Introduction

This checklist recommends a standardized set of data and a standard basic level of analysis needed for PSD applications and SIP revisions. The checklist implies a level of detail required to assess both PSD increments and the NAAQS. Individual cases may require more or less information and the Regional Meteorologist should be consulted at an early stage in the development of a data base for a modeling analysis.

At pre-application meetings between source owner and reviewing authority, this checklist should prove useful in developing a concensus on the data base, modeling techniques and overall technical approach prior to the actual analyses. Such agreement will help avoid misunderstandings concerning the final results and may reduce the later need for additional analyses.

Example Air Quality Analysis Checklist [1]

1. Source location map(s) showing location with respect to:
- Urban areas.[2]
- PSD Class I areas
- Nonattainment areas [2]
- Topographic features (terrain, lakes, river valleys, etc.)[2]
- Other major existing sources [2]
- Other major sources subject to PSD requirements
- NWS meteorological observations (surface and upper air)
- On-site/local meteorological observations (surface and upper air)
- State/local/on-site air quality monitoring locations.[2]
- Plant layout on a topographic map covering a 1km radius of the source with information sufficient to determine GEP stack heights.

2. Information on urban/rural characteristics:
- Land use within 3km of source classified according to Auer (1978): Correlation of land use and cover with meteorological anomalies. Journal of Applied Meteorology, 17: 636–643.
- Population.

—>total
—>density

- Based on current guidance determination of whether the area should be addressed using urban or rural modeling methodology.

3. Emission inventory and operating/design parameters for major sources within region of significant impact of proposed site (same as required for applicant)
- Actual and allowable annual emission rates (g/s) and operating rates.[3]
- Maximum design load short-term emission rate (g/s).[3]
- Associated emissions/stack characteristics as a function of load for maximum, average, and nominal operating conditions if stack height is less than GEP or located in complex terrain. Screening analyses as footnoted on page 1 or detailed analyses, if necessary, must be employed to determine the constraining load condition (e.g., 50%, 75%, or 100% load) to be relied upon in the short-term modeling analysis.

—Location, Universal Transverse Mercators (UTM's)
—Height of stack (m) and grade level above Mean Sea Level (MSL)
—Stack exit diameter (m)
—Exit velocity (m/s)
—Exit temperature (°K)

- Area source emissions (rates, size of area, height of area source).[3]
- Location and dimensions of buildings (plant layout drawing).

—To determine GEP stack height
—To determine potential building downwash considerations for stack heights less than GEP

- Associated parameters.

—Boiler size (megawatts, pounds/hr. steam, fuel consumption, etc.)
—Boiler parameters (% excess air, boiler type, type of firing, etc.)
—Operating conditions (pollutant content in fuel, hours of operation, capacity factor, % load for winter, summer, etc.)
—Pollutant control equipment parameters (design efficiency, operation record, e.g., can it be bypassed?, etc.)

- Anticipated growth changes.

4. Air quality monitoring data:
- Summary of existing observations for latest five years (including any additional quality assured measured data which can be obtained from any state or local agency or company).[4]
- Comparison with standards.
- Discussion of background due to uninventoried sources and contributions from outside the inventoried area and description of the method used for determination of background (should be consistent with the Guideline on Air Quality Models).

5. Meteorological data:
- Five consecutive years of the most recent representative sequential hourly National Weather Service (NWS) data, or one or more years of hourly sequential on-site data.
- Discussion of meteorological conditions observed (as applied or modified for the site-specific area, i.e., identify possible variations due to difference between the monitoring site and the specific site of the source).
- Discussion of topographic/land use influences.

6. Air quality modeling analyses:
- Model each individual year for which data are available with a recommended model or model demonstrated to be acceptable on a case-by-case basis.

—Urban dispersion coefficients for urban areas
—Rural dispersion coefficients for rural areas

- Evaluate downwash if stack height is less than GEP.
- Define worst case meteorology.
- Determine background and document method.

—Long-term
—Short-term

- Provide topographic map(s) of receptor network with respect to location of all sources.
- Follow current guidance on selection of receptor sites for refined analyses.
- Include receptor terrain heights (if applicable) used in analyses.
- Compare model estimates with measurements considering the upper ends of the frequency distribution.
- Determine extent of significant impact; provide maps.
- Define areas of maximum and highest, second-highest impacts due to applicant source (refer to format suggested in Air Quality Summary Tables).

—>long-term
—>short-term

7. Comparison with acceptable air quality levels:
- NAAQS.
- PSD increments.
- Emission offset impacts if nonattainment.

8. Documentation and guidelines for modeling methodology:
- Follow guidance documents.

—>"Guideline on Air Quality Models, Revised" (EPA–450/2–78–027R)
—>"Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised" (EPA–450/R–92–019), 1992
—>"Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations)" (EPA–450/4–80–023R), 1985
—>"Ambient Monitoring Guidelines for PSD" (EPA–450/4–87–007), 1987
—>"Requirements for Preparation, Adoption and Submittal of Implementation Plans: Approval and Promulgation of Implementation Plans", 40 CFR Parts 40 and 51 (Prevention of Significant Deterioration), 1982

[1] The "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised", October 1992 (EPA–450/R–92–019), should be used as a screening tool to determine whether modeling analyses are required. Screening procedures should be refined by the user to be site/problem specific. (Available from NTIS as document EPA–450/R–92–019. NTIS number to be provided).

[2] Within 50km or distance to which source has a significant impact, whichever is less.

[3] Particulate emissions should be specified as a function of particulate diameter and density ranges.

[4] See footnote 2 of this checklist.

AIR QUALITY SUMMARY—FOR NEW SOURCE ALONE

[Pollutant: _____[1] _____[2] _____[2]]

	Highest	Highest 2nd high	Highest	Highest 2nd high	Annual
Concentration Due to Modeled Source (μg/m³)					
Background Concentration (μg/m³)					
Total Concentration (μg/m³)					
Receptor Distance (km) (or UTM Easting)					
Receptor Direction (°) (or UTM Northing)					
Receptor Elevation (m)					
Wind Speed (m/s)					
Wind Direction (°)					

[1] Use separate sheet for each pollutant (SO_2, TSP, CO, NO_x, HC, Pb, Hg, Asbestos, etc.)
[2] List all appropriate averaging periods (1-hr, 3-hr, 8-hr, 24-hr, 30-day, 90-day, etc.) for which an air quality standard exists.

Mixing Depth (m)
Temperature (°K)
Stability
Day/Month/Year of Occurrence

Surface Air Data From _____
Surface Station Elevation (m) _____
Anemometer Height Above Local Ground Level (m) _____

Upper Air Data From _____
Period of Record Analyzed _____
Model Used _____
Recommended Model _____

AIR QUALITY SUMMARY—FOR ALL NEW SOURCES

[Pollutant: _____[1] _____[2] _____[2]]

	Highest	Highest 2nd High	Highest	Highest 2nd High	Annual
Concentration Due to Modeled Source (μg/m³)					
Background Concentration (μg/m³)					
Total Concentration (μg/m³)					
Receptor Distance (km) (or UTM Easting)					
Receptor Direction (°) (or UTM Northing)					
ptor Elevation (m)					
Wind Speed (m/s)					
Wind Direction (°)					

[1] Use separate sheet for each pollutant (SO_2, TSP, CO, NO_x, HC, Pb, Hg, Asbestos, etc.)
[2] List all appropriate averaging periods (1-hr, 3-hr, 8-hr, 24-hr, 30-day, 90-day, etc.) for which an air quality standard exists.

Mixing Depth (m)
Temperature (°K)
Stability
Day/Month/Year of Occurrence

Surface Air Data From _____
Surface Station Elevation (m) _____
Anemometer Height Above Local Ground Level (m) _____

Upper Air Data From _____
Period of Record Analyzed _____
Model Used _____
Recommended Model

AIR QUALITY SUMMARY—FOR ALL SOURCES

Pollutant: [_____[1] _____[2] _____[2]]

	Highest	Highest 2nd high	Highest	Highest 2nd high	Annual
Concentration Due to Modeled Source (μg/m³)					
Background Concentration (μg/m³)					
Total Concentration (μg/m³)					
Receptor Distance (km) (or UTM Easting)					
Receptor Direction (°) (or UTM Northing)					
Receptor Elevation (m)					
Wind Speed (m/s)					
Wind Direction (°)					

[1] Use separate sheet for each pollutant (SO_2, TSP, CO, NO_x, HC, Pb, Hg, Asbestos, etc.)
[2] List all appropriate averaging periods (1-hr, 3-hr, 8-hr, 24-hr, 30-day, 90-day, etc.) for which an air quality standard exists.

Mixing Depth (m)
Temperature (°K)
Stability
Day/Month/Year of Occurrence

Surface Air Data From _____
Surface Station Elevation (m) _____
Anemometer Height Above Local Ground Level (m) _____
Upper Air Data From _____

Period of Record Analyzed _____
Model Used _____
Recommended Model _____

STACK PARAMETERS FOR ANNUAL MODELING

Stack (m) No. length	Serving emission rate for each pollutant (g/s)	Stack exit diameter (m)	Stack exit velocity (m/s)	Stack exit temperture (°K)	Physical stack height (m)	GEP stack ht. (m)	Stack base elevation (m)	Building dimensions	
								Height	Width

STACK PARAMETERS FOR SHORT-TERM MODELING[1]

Stack (m) No. length	Serving emission rate for each pollutant (g/s)	Stack exit diameter (m)	Stack exit velocity (m/s)	Stack exit temperture (°K)	Physical stack height (m)	GEP stack ht. (m)	Stack base elevation (m)	Building dimensions	
								Height	Width

[1] Separate tables for 50%, 75%, 100% of full operating condition (and any other operating conditions as determined by screening or detailed modeling analyses to represent constraining operating conditions) should be provided.

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 is revised to read as follows:

Authority: 42 U.S.C. 7401–7642.

§ 52.21 [Amended]

2. In § 52.21, paragraph (l)(1) is revised to read as follows; paragraph (l)(2) is amended by revising "the 'Guideline on Air Quality Models (Revised)' (1986) and Supplementary A (1987)" to read "appendix W of part 51 of this chapter ('Guideline on Air Quality Models (Revised)' (1986), supplement A (1987) and supplement B (1993))".

§ 52.21 Prevention of significant deterioration of air quality.

* * * * *

(l) * * *

(1) All estimates of ambient concentrations required under this paragraph shall be based on the applicable air quality models, data bases, and other requirements specified in appendix W of part 51 of this chapter ("Guideline on Air Quality Models (Revised)" (1986), supplement A (1987) and supplement B (1993)). The Guideline and its supplements (EPA Publication No. 450/2–78–027R) are also for sale from the U.S. Department of Commerce, National Technical Information Service, 5825 Port Royal Road, Springfield, VA, 22161.

* * * * *

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM, GENERAL

1. The authority citation for part 260 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921–6927, 6930, 6934, 6935, 6937, 6938, 6939, and 6974.

§ 260.11 [Amended]

2. Section 260.11 is amended by revising the last reference in paragraph (a) to read as follows:

§ 260.11 References.

* * * * *

"Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised", October 1992, EPA Publication No. EPA–450/R–92–019, Environmental Protection Agency, Research Triangle Park, NC.

* * * * *

PART 266—STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

1. The authority citation for part 266 is revised to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, and 6934.

Appendix X—[Removed]

2. Part 266 is amended by removing appendix X.

3. Section 266.104 is amended by revising paragraph (e)(3) to read as follows:

§ 266.104 Standards to control organic emissions.

* * * * *

(e) * * *

(3) Conduct dispersion modeling using methods recommended in appendix W of part 51 of this chapter ("Guideline on Air Quality Models (Revised)" (1986) and its supplements), the "Hazardous Waste Combustion Air Quality Screening Procedure", provided in appendix IX of this part, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised (incorporated by reference in § 260.11) to predict the maximum annual average off-site ground level concentration of 2,3,7,8–TCDD equivalents determined under paragraph (e)(2) of this section. The maximum annual average concentration must be used when a person resides on-site; and

* * * * *

4. Section 266.106 is amended by revising paragraph (h) to read as follows:

§ 266.106 Standards to control metals emissions.

* * * * *

(h) *Dispersion Modeling.* Dispersion modeling required under this section shall be conducted according to methods recommended in appendix W of part 51 of this chapter ("Guideline on Air Quality Models (Revised)" (1986) and its supplements), the "Hazardous Waste Combustion Air Quality Screening Procedure", provided in appendix IX of this part, or in Screening Procedures for Estimating the Air

Quality Impact of Stationary Sources, Revised (incorporated by reference in § 260.11) to predict the maximum annual average off-site ground level concentration. However, on-site concentrations must be considered when a person resides on-site.

* * * * *

[FR Doc. 93–16867 Filed 7–19–93; 8:45 am]

BILLING CODE [illegible]

federal register

Tuesday
July 20, 1993

Part III

Department of Health and Human Services

Administration for Children and Families

Request for Applications Under the Office of Community Services' FY 1993 Family Support Center and Gateway Demonstration Programs; Notice

DEPARTMENT OF HEALTH AND HUMAN SERVICES

[Program Announcement No. OCS–93–04]

Request for Applications Under the Office of Community Services' FY 1993 Family Support Center and Gateway Demonstration Programs

AGENCY: Administration for Children and Families, OCS, ACF, DHHS.

ACTION: Announcement of availability of funds and request for applications under the Office of Community Services' FY 1993 Family Support Center and Gateway Demonstration Programs.

INTRODUCTION: This announcement contains information relating to two distinct programs that address the issue of family homelessness: The Family Support Center Demonstration Program and the Gateway Demonstration Program.

The intent of the Family Support Center Demonstration Program is to support projects designed to ensure the provision of intensive and comprehensive supportive services that will enhance the physical, social and educational development of low-income individuals and families, especially those individuals in very low-income families who were previously homeless and who are currently residing in governmentally subsidized housing or who are at risk of becoming homeless. (Families at risk of homelessness include those living in precarious housing situations, e.g., doubled up with another family; in unstable or inadequate housing; or those facing eviction or loss of housing.) The intent of the Gateway Demonstration Program is to support demonstration grants to local education agencies to provide on site education and training and necessary support services to economically disadvantaged residents of public housing in an effort to promote increases in literacy levels and basic employment skills. Both programs seek to assist low and very low income families in achieving progress toward increased potential for independence and self-sufficiency.

SUMMARY: The Office of Community Services (OCS) announces that competing applications will be accepted for Family Support Center and Gateway Demonstration projects authorized by the Stewart B. McKinney Homeless Assistance Act, as amended (Pub. L. 101–645). (See 42 U.S.C. 11481–11489.)

Under the Family Support Center Program, the Office of Community Services will make grants to eligible entities in urban and non urban areas to pay for the cost of demonstration programs designed to ensure the provision of intensive and comprehensive supportive services to previously homeless families residing in subsidized public housing or those at risk of homelessness. Services to infants, children and youths shall be designed to enhance their physical, social and educational development and include an array of appropriate services that address the causes and deleterious effects of homelessness. Services to parents and other family members shall be designed to contribute to their child(ren)'s healthy development and to the achievement of skills and objectives that move the family toward self-sufficiency. All services provided shall be coordinated through the auspices of a case management program and include necessary and appropriate services that address the economic and housing needs of the "low-income and very low-income" client families.

Under the Gateway Demonstration Program, grants will be provided to local education agencies to provide on-site education, training and necessary support services to economically disadvantaged residents of public housing. Grantees, in consultation with the local public housing authorities and private industry councils, will design such demonstration programs to increase literacy levels and basic employment skills among residents of public housing developments.

Eligible applicant entities for the Family Support Center Demonstration Program include a variety of public and private community based organizations capable of administering and delivering a comprehensive program providing required assistance as outlined in section E.

Eligible applicant entities for the Gateway Demonstration Program include local education agencies in concert with public housing authorities and private industry councils.

Availability of Funds and Grant Amounts

Approximately $6,674,560 is available to support first year grant awards under this program announcement and to provide second year/continuation funding to organizations who received funding in the FY 1992 Homeless Families Support Services Demonstration Program. We estimate that a minimum of 3 new Family Support Center grants will be awarded at a maximum of $200,000 per year for a period of two years. We also expect to fund 5 Gateway demonstration grants at a maximum of $125,000 per year for a period of two years.

CLOSING DATE: The closing date for submission of applications is August 19, 1993.

ADDRESSES: Address applications to: U.S. Department of Health and Human Services, Administration for Children and Families, Division of Discretionary Grants, (OCS–93–04/ZC:ZG) 370 L'Enfant Promenade, SW, 6th Floor, Washington, DC 20447.

FOR FURTHER INFORMATION CONTACT: Margaret Washnitzer, Office of Community Services, Division of Community Demonstration Programs, (202) 401–2333.

SUPPLEMENTARY INFORMATION:

Part I: General Information—Family Support Center Demonstrations

A. Program Purpose

The Family Support Center Demonstration Program is an integral part of an HHS/HUD initiative to encourage and test integrated approaches to reducing homelessness among families with children. The purpose of this demonstration is to develop and operate Family Support Centers that administer and provide comprehensive and intensive supportive services that enhance the physical, social and educational development of low and very low-income individuals and families, especially those individuals in very low-income families who were previously homeless currently residing in governmentally subsidized housing or those are at risk of becoming homeless. (Families at risk of homelessness include those living in precarious housing situations, e.g., doubled up with another family; in unstable or inadequate housing; or those facing eviction or loss of housing.) The program also endeavors to support the Family Support Center's efforts to coordinate and integrate its activities with State and local public and private agencies in providing assistance to the target populations. This program funds a wide array of services to children and adult family members in an effort to combat the effects of episodes of homelessness and also to prevent initial occurrences of homelessness among at risk families. The program advocates a coordinating case management approach and seeks to assist agencies that include this as an integral form of service delivery.

B. Program Services

The project awards will primarily allow for the design, development and

establishment of a family support center that can arrange for and/or provide an array of comprehensive and intensive case-managed social services to previously homeless families residing in subsidized public housing or those at risk of homelessness. Services to infants, children and youths shall be designed to enhance the physical, social and educational development and include an array of appropriate services that address the causes and deleterious effects of homelessness. Services to parents and other family members shall be designed to contribute to their child(ren)'s healthy development and to the achievement of skills and objectives that move the family toward self-sufficiency. All services provided shall be coordinated through the auspices of a family case management program and include necessary and appropriate services that address the economic and housing needs of the "low-income and very low-income" client families.

In the case of services provided to infants, children and youth, such services shall be designed to enhance the physical, social and educational development that include, where appropriate, the following:

—Nutritional services
—Screening and referral services
—Child care services
—Early childhood development programs
—Early intervention services for children with, or at risk of developmental delays
—Dropout prevention services
—After school activities
—Job readiness and job training services
—Education (including basic skills and literacy services)
—Emergency services including special outreach services targeted to homeless and runaway youth
—Crisis intervention and counseling services
—Other services as necessary and appropriate.

In the case of services provided to parents and other family members, services shall be designed to better enable parents and other family members to contribute to their child's healthy development and shall include, where appropriate, the following:

—Substance abuse education
—Counseling
—Referral for treatment
—Crisis intervention
—Employment counseling and training
—Life-skills training, including personal financial counseling
—Education, including basic skills and literacy services
—Parenting classes
—Consumer homemaking
—Other services as necessary and appropriate

In the case of services provided by family case managers, the following shall be included:

—Needs assessment
—Support in accessing and maintaining appropriate public assistance and social services
—Referral and followup for substance abuse counseling and treatment
—Counseling and crisis intervention
—Family advocacy services
—Housing assistance activities
—Housing counseling
—Eviction or foreclosure prevention assistance
—Referral to sources of emergency rental or mortgage assistance payment
—Support in accessing home energy assistance
—Other services as appropriate

Approaches are sought that emphasize a coordinated effort by a range of community-oriented entities that consolidate resources to a targeted population in need.

Centers may be a homeless family component of an existing family oriented program for low and very low income, at risk families or a center organized specifically to provide services targeted at serving the previously homeless and/or at risk families in an identified community.

C. Program Beneficiaries

Projects proposed for funding under this announcement must directly benefit previously homeless low-income and very low-income homeless individuals and families residing in governmentally subsidized housing or who are at-risk of becoming homeless. The term "low-income" when applied to families or individuals means a family or individual income that does not exceed 80% of the median income for an individual or family in the area, as determined by the Secretary of Housing and Urban Development, subject to his discretion to establish different ceilings based on area variations. The term "very low-income" when applies to families or individuals means a family or individual income that does not exceed 50% of the median income for an individual or family in the area, as determined by the Secretary of Housing and Urban Development, subject to his discretion to establish different ceilings based on area variations. (See Attachment A.)

D. Eligible Applicants

Eligible entities are State and local government agencies, Head Start agencies and any community-based organization of demonstrated effectiveness such as a Community Action Agency designated under section 210 of the Economic Opportunity Act of 1984 (42 U.S.C. 2790), public housing agencies as defined in section 3(b)(6) of the United States Housing Act of 1937 (42 U.S.C. 1437a(6)), State Housing Finance Agencies, local education agencies, an institution of higher education, a public hospital, a community development corporation, a private industry council as defined under section 102(a) of the Job Training Partnership Act (JTPA) (29 U.S.C. 1512(a)), a community health center, and any other public or private nonprofit organizations specializing in the provision of social services.

More than one eligible entity in a State may apply, but separate applications must be submitted.

E. Project Period

This announcement is soliciting applications for project periods of up to two years. Awards, on a competitive basis, will be for a one-year budget period, although project periods may be for two years. Applications for continuation grants funded under these awards beyond the one-year budget period, but within the two-year project period, will be entertained in the next fiscal year on a non-competitive basis, subject to the availability of funds, satisfactory progress of the grantee and determination that this would be in the best interest of the government.

Part II: Description of the Family Support Center Demonstration Program

A. Grantee Responsibilities

The Family Support Center Demonstration Program is intended to prevent the occurrence of homelessness by providing an intensive and comprehensive array of supportive and other services to a client population in order to prevent further homelessness. The Center will create a centralized point for the provision of intensive and comprehensive supportive services and for access to various service providers. The center will provide active family case management and assist clients in maintaining a stable household and assist them in achieving self-sufficiency Further, the center will assist in joining the case management functions offered by other service providers to provide for coordinated family case management. The Center will tie together service providers and organize a means to reduce duplication of effort in response to their potentially or previously homeless clientele; and, to reduce the

administrative and programmatic burden that often is placed upon the client population.

To accomplish these goals, grantees are expected to have, in addition to the provision of a core of essential services, the capacity to coordinate, link and otherwise organize a cadre of existing providers. A Family Support Center Demonstration program should also include coordination with existing Federally sponsored social services and housing programs such as the Community Services Block Grant (CSBG), AFDC/JOBS program and the varied Department of Housing and Urban Development programs.

Each Family Support Center Grantee is required to exhibit the following:

—The capacity to administer a comprehensive support services program directed toward an identified target population;

—The geographic proximity of facility to the families to be served or the ability to provide mobile or offsite services;

—The ability to coordinate and integrate its activities with State and local public agencies (such as agencies responsible for education, employment and training, health and mental health services, substance abuse services, social services, child care, nutrition, income assistance, housing and energy assistance, and other relevant services), with public or private non-profit agencies and organizations that have a demonstrated record of effectiveness in providing assistance to homeless and at risk families and with appropriate non-profit private organizations involved in the delivery of eligible support services;

—The fiscal and administrative capacities to conduct a complex, comprehensive and intensive service delivery program;

—The involvement of project participants and community representatives in the planning and operation of the program;

—The utilization and proximity of available comparable Community Action Agency services, unless the applicant is the CAA and intends to expand its existing services;

—The provision of coordinated family case management services which direct all respective case management activities through a team approach;

—The program may not use more than 7 percent of their grant to improve the retention and effectiveness of staff and volunteers;

—The participation in an ongoing evaluation mechanism to address process and outcome issues as they relate to the efficacy and efficiency of the demonstration program; and,

—The program must establish and provide necessary staff support for an advisory body representing the community, providers and target population. The advisory council must include a participant of the program as an active member.

This announcement prescribes no single model for program organization, staffing or service delivery. Instead, it invites applicants to propose structures and mechanisms for delivering services that are unique to the community and the clientele that it serves.

The operating and organizational structure of the program should include a range of agreements with community services providers that responds to the assessed needs of the client populations. These agreements are most essential to the success of the project. The program seeks to attract prospective grantees with written agreements either in place at the time of application or able to be in place within 60 days of the grant award. This is to assure an accelerated provision of services to the clients. In those cases where additional services are to be added to existing service patterns, the grantee will provide timetables for the inclusion of these added services. Prospective grantees will have a combination of existing and potential agreements and affiliations for services. It is recommended that the program include affiliations with entities that support and enlarge its service providing role. This may include affiliations with the academic community, such as schools of social work, that may provide a source of staff resources, student/intern placements and a site for scholastic investigation and research.

Most importantly, applicants must be closely identified with and located within circumscribed geographical boundaries that coincide with the location and residences of the target population. This catchment area concept should be reflected in the physical location of the project which should be readily accessible to the target population. This in no way limits the possible configurations for project locus. Instead, it permits a range of possibilities that is consistent with the residential pattern of the target population. While the project is most likely to be physically located in or near the place(s) where its target population lives, it is conceivable that its administrative functions may be off-site or co-located with parent agencies.

The activities funded under this program announcement must be in addition to, and not in substitution for, activities previously carried on without Federal assistance. Also, funds or other resources currently devoted to activities designed to meet the needs of the poor within a community, area, or State must not be reduced.

A percentage of non-Federal share, either in cash and/or in-kind contributions, secured from non-Federal sources is not required. The lack of a requirement is not intended in any way to discourage the use of applicant or third party financial and resource support. Although there is not a specific non-Federal percentage requirement for grants awarded under this announcement, the amount pledged will be given additional weight during the evaluation process. Therefore, the applicant should ensure any amount proposed as match prior to inclusion in its budget. If the non-Federal share pledged is not met by the funded project, a disallowance can be taken of unmatched Federal dollars. Further, it should be noted that as the project matures over the project life, there is an implicit encouragement of the assumption of costs of the project by the applicant and the constituent community participants.

In addition to the responsibilities listed above, the applicant is required by statute to provide within their application the following:

1. Assurances that grant funds will be used to create new services only to the extent that no other funds can be obtained to fulfill the purpose, as required by 42 U.S.C. 11482(e)(2)(F);

2. A description of the program's relationship to various State and local agencies, as required by 42 U.S.C. 11482(e)(2)(G);

3. An explanation of the methods which the grantee will employ to ensure that no more than 7% of the grant funds awarded will be used to improve the retention and effectiveness of staff and volunteers, as required by 42 U.S.C. 11482(e)(2)(I);

4. Assurances that the grantee will establish an advisory council group to provide policy and programming guidance which will meet the representational requirements of 42 U.S.C. 11482(e)(2)(J);

5. Assurances that any fees assessed by the grantee for program services will be nominal in relation to the financial situation of the recipient of such services, as required by 42 U.S.C. 11482(e)(2)(M); and,

6. Assurance that grant funds will not be used to supplant Federal, State and local funds currently expended to provide program services, as required by 42 U.S.C. 11482(e)(2)(N).

B. Grantee Objectives

The objectives of the grantees are expected to be: the enhancement of the living conditions of low and very low income families; the improvement of the physical, social and educational development of low and very low income children and families served by the program; the achievement of progress towards increased potential for independence and self-sufficiency among families served; the reduction in the rate of repeated incidence of homelessness among center clientele and a decrease in the incidence of first time homelessness among community participants.

C. Evaluation

The Department expects to contract for an independent evaluation of the programs and entities that receive assistance under this program. The anticipated evaluation shall examine at a minimum, with respect to the fulfillment of program objectives for children and families served, the following:

1. The enhancement of the living conditions of low and very low income families in housing and in neighborhoods;

2. The improvement of the physical, social and educational development;

3. The achievement of progress towards increased potential for independence and self-sufficiency; and,

4. The degree to which the provision of services is affected by caseload size.

Grantees are expected to cooperate with Federal evaluation contractor(s) that will be funded by the Department. Evaluation contractors will conduct assessments of program and service delivery models. Such cooperation will involve periodically furnishing needed process and outcome oriented data as required by the contractors and allowing them access to information that has not otherwise been provided by the grantee.

Grantees are expected to maintain sufficient resources to fulfill required data obligations and to respond to demands for information that is to be complied for national evaluation and reporting.

D. Grant Proposals

To ensure that applicants with the most potential for demonstrating innovative ways to accomplish the goals of the program and establishing new, or expanding existing mechanisms for providing services to the target populations, applicants for grants shall develop their proposals in accordance with the factors described below:

Need and Understanding of Program Purposes

Identify the population and geographic location to be served by the project and how previously homeless and at risk families will be chosen for enrollment. Provide assurances in the form of demographic data that there are sufficient number of eligible families residing in the designated area to be served and that a sufficient number of these families will be enrolled in the program.

Provide assurances and describe how core and other services to be provided are closely related to the assessed needs of the target populations and that the needs to be addressed are consistent with the objectives of this program.

Project Approach

Identify and describe where and how the project will provide directly or arrange for intensive and comprehensive services. Furnish information on which services are to be provided on site and those which are to be provided in off site locations. Applicant should clearly differentiate between those services which will be provided through the use of Federal funds and those services which have been committed to the project by other sources.

Identify referral providers, agencies and organizations with which the applicant agency will coordinate in order to carry out the objectives of the grant. This necessarily includes those services which are committed to the project without cost to the grant.

Furnish relevant agreements and letters of commitment indicating which services and the level of effort (cost) that will be provided to project participants by those providers agencies and/or organizations. Applications should describe current or previous relationships with these agencies and/or organizations.

Coordination and Linkages

Describe the extent to which the applicant, through its project, will coordinate and create linkages to existing service providers or new mechanisms for maximizing these organizational and service ties. This refers to the amounts of funds and activities including direct client services which are generated through the grant mechanism, but not necessarily paid for by grant funds.

Cost Effectiveness and Organizational Capacity

Identify how the project will be administered and managed including the organizational location of this project in relationship to the chief executive of the administering agency. Submit a detailed first year timetable for implementing activities and enrolling families as well as a more general timetable for year 2. Provide a description of the applicant's previous program, administrative and fiscal experience in accomplishing goals and objectives similar to those outlined in this program. Provide information on experience in coordinating activities with State and local public or non-profit agencies and organizations. Provide resumes detailing the relevant education, training and experience of the key project staff, their responsibilities in connection with and the time they will be committing to this project. Applicants should furnish any information which illustrates their skills and capacity to accomplish the project goals and objectives in a timely manner. Every effort should be made to include on staff persons who are homeless or previously homeless.

Identify and describe in detail the proposed first year budget for the project and the second year projection and assure that the proposed costs are reasonable in view of the activities to be pursued.

Outcomes and Expected Results

Identify, in measurable terms, expected outcomes for participating families.

Reports, Monitoring and Evaluation

Provide in descriptive terms, the manner in which required reports are to be assembled along with the identification of data sources. The application will identify and describe the mechanisms that will be instituted and the commitment of specific resources that will address the requisite evaluation activities, including commitment to commensurate information requirements. This would necessarily include the reliance on a useful information management system that was capable of producing program outcome data and responding to need of a national evaluation study.

Part III: Description of the Gateway Demonstration Program

A. Program Purpose

This demonstration program will provide grant funds to local education agencies, in consultation with the local public housing authority and private industry council, to provide on-site education, training and necessary support services to economically disadvantaged residents of public housing.

B. Program Services and Requirements

The project awards will primarily allow for the design, development and establishment of an education, training and support services program, at a minimum, consisting of the following mandatory services:

—Outreach and information services designed to make eligible individuals aware of available services;
—Literacy and bilingual education services, where appropriate;
—Remedial education and basic skills training;
—Employment training and personal management skill development or referrals for such services; and,
—Child care or dependent care for dependents of eligible individuals during those times, including afternoons and evenings, when training services are being provided. (To the extent practicable, child care services shall be designed to employ public housing residents after appropriate training.)

Program may provide the following optional services:

—Pre-employment skills training;
—Employment counseling and application assistance;
—Job development services;
—Federal employment-related activity services;
—Completion of high school or GED program services;
—Transitional assistance, including child care for up to 6 months to enable such individual to successfully secure unsubsidized employment;
—Substance abuse prevention and education; and,
—Other appropriate support services.

C. Program Beneficiaries

Projects proposed for funding under this portion of the announcement must directly target participation in the training and services to individuals who reside in public housing; are economically disadvantaged; and, have encountered barriers to employment because of basic skills deficiency including not having a high school diploma, GED, or the equivalent. The grantee shall give priority to single heads of households with young dependent children.

D. Evaluation

The Department expects to contract for an independent evaluation of the programs and entities that receive assistance under this program. The anticipated evaluation shall examine at a minimum, with respect to the fulfillment of program objectives for children and families residing in public housing, the ability of the Gateway Program to promote increase in literacy levels and basic employment skills.

Grantees are expected to cooperate with Federal evaluation contractor(s) that will be funded by the Department. Evaluation contractors will conduct assessments of program and service delivery models. Such cooperation will involve periodically furnishing needed process and outcome oriented data as required by the contractors and allowing them access to information that has not otherwise been provided by the grantee.

Grantees are expected to maintain sufficient resources to fulfill required data obligations and to respond to demands for information that is to be compiled for national evaluation and reporting.

E. Eligible Applicants

Eligible entities are local education agencies.

F. Project Period

This announcement is soliciting applications for project periods up to two years. Awards, on a competitive basis, will be for a one-year budget period, although project periods may be for two years. Applications for continuation grants funded under these awards beyond the one-year budget period, but within the two-year project period, will be entertained in the next fiscal year on a non-competitive basis, subject to the availability of funds, satisfactory progress of the grantee and determination that this would be in the best interest of the government.

G. Grantee Responsibilities

The grantee shall demonstrate that training and ancillary support services will be accessed through existing program providers to the extent that they are located in the immediate vicinity of the public housing development, or they will contract with such providers for on-site service delivery. The grantee shall warrant that funds provided under this program will be utilized to purchase such service only to the extent that no other funds can be obtained to fulfill the purpose of this demonstration.

The local public housing agency shall agree to make available suitable facilities in the public housing development for the provision of education, training and support services.

The grantee shall demonstrate that the recipients of services have been recruited with the assistance of the public housing authority and are eligible individuals.

The grantee shall demonstrate the ability to coordinate the services provided with other services provided, with the public housing development and private industry council as well as with other public and private agencies and organizations of demonstrated effectiveness providing similar and ancillary services to the target population.

The grantee, to the fullest extent practicable, shall demonstrate that they have attempted to employ residents of the public housing development whenever qualified residents are available.

Part IV: Criteria for Review and Evaluation of Applications

Applications for both programs will be reviewed and evaluated to assess the applicant's ability to carry out the projects described under part II and III of this announcement, against the following criteria:

1. *Need (10 points)*

A. Understanding of Program Purposes (5 points)

The extent to which the application reflects a good understanding of the purpose(s) of the program, including the problems, barriers and impediments that prevent the efficient and effective delivery of an array of intensive and comprehensive services to stabilize homeless and at-risk families and prevent them experiencing initial or recurring episodes of homelessness.

B. Client, Community and Service System Needs (5 points)

The degree to which the application presents the appropriate and pertinent demographic, social and personal data describing the needs of the client populations to be served.

Community data should reflect the resources and the lack of services or programs to address the target population needs. Service system needs should reveal the extent to which there is potential for short to intermediate range solutions to organizational and systemic problems that affect the target populations.

2. *Project Plan (40 points)*

A. Goals and Objectives (5 points)

The enumeration of clearly articulated goals and corresponding objectives addressing the problems. These should be listed in a sequential and integrated fashion tied to program purposes and client needs.

B. Approach (10 points)

The soundness and feasibility of the methods and organization of the project

to respond to specified goals and objectives and client, community and system needs.

The extent to which the application outlines a sound and workable plan of action and details how the proposed work will be accomplished; gives acceptable reasons for taking this approach as opposed to others;

C. Activities Planned, Outcomes and Expected Results (10 points)

Application lists the activities along with anticipated steps to be carried out in a programmatic and chronological order. Applications includes a feasible schedule of target dates and accomplishments, in sufficient detail for the first year and more generally for the second year.

Application identifies measurable expected results for participating children and families.

D. Cost Effectiveness (5 points)

The extent to which the project's financial costs are reasonable in view of the activities to be carried out and their forecasted outcomes. Applications should address cost expenditures *vis a vis* anticipated project benefits.

E. Innovation (10 points)

Application should articulate creative and otherwise original approaches and ways to achieve project objectives especially as they relate to program purposes; application describes unique features of the project, such as design or technological innovations, reductions in cost or time, or extraordinary client and community involvements.

The application uses original and enterprising means to identify, target, reach and serve children and families using creative and unique configurations of mainstream and other programs in the community.

3. *Capacity (20 points)*

A. Staff—Background and Experience (5 points)

The extent to which the resumes of the program director and key project staff (including names, addresses, training, background and other qualifying experience) demonstrate the ability to effectively and efficiently administer and/or operate within a project of this size, complexity and scope. Staff background and experience should also exhibit clearly the ability of proposed staff to use and coordinate activities with other agencies for the delivery of intensive and comprehensive support services. In the event that new hires or positions are involved, application should demonstrate mechanisms to access available human resources and the ability to bring resources quickly on line with the project.

B. Organization (15 points)

Organizational resources that can be utilized within this project, including applicant facilities and physical resources such as existing office and client services space. The resources capacity of the organization may also include the attributes of the applicant entity to attract cooperating community and other agency resources such as outside means, properties and assets to participate in the program. Application also includes information confirming the organization's administrative and management capabilities and its appropriate location within the organizational structure to support the successful operation of this project.

4. *Coordination (15 points)*

A. Consortia or Project Partnerships (5 points)

Application demonstrates breadth and depth in the strength of the consortia involved in the project. Application describes project coordination and linkages with organizations, agencies, and key groups as well as the activities and nature of their effort or contribution. Partnerships established with various private (e.g. foundations, volunteer efforts) and key public programs are included.

B. Committed Resources (5 points)

Application identifies current and/or anticipated commitments indicating kinds of service along with specific level of efforts from cooperating service-providing organizations or agencies.

C. Linkages (5 points)

Confirmation of linkages established with other local systems-oriented or integration initiatives.

5. *Monitoring and Evaluation (15 points)*

A. Reports and Monitoring (5 points)

Application should include information reflecting the entity's ability to conform to required schedule of program and administrative reports and to maintain controls through an organized monitoring effort.

B. Evaluation Activities (10 points)

Application should contain information outlining the entity's ability and willingness to participate in ongoing evaluation mechanisms and the capacity to provide required process and outcome oriented data. These data requirements will support identification and evaluation of grantee objectives, namely, the enhancement of the living conditions of low and very low income families; the improvement of the physical, social and educational development of low and very low income children and families served by the program; the achievement of progress towards increased potential for independence and self-sufficiency among families served; the reduction in the rate of repeated incidence of homelessness among center clientele and a decrease in the incidence of first time homelessness among community participants.

Part V: Application Procedures

A. Availability of Forms

This announcement with attachments contains standard forms necessary to apply for awards under this program. These forms may be photocopied for the application.

Copies of the **Federal Register** containing this announcement are available at most local libraries and Congressional District Offices for reproduction. If copies are not available at these sources, they may be obtained by writing or telephoning the office listed under the section entitled "**FOR FURTHER INFORMATION**" at the beginning of the announcement. (See Attachments B and C.)

Agencies and organizations interested in applying for demonstration grant funds should submit an application on the Standard Form 424, 424A and 424B included in this announcement.

Each application must be executed by an individual authorized to act on behalf of the applicant agency and to assume responsibility for the obligations imposed by the terms and conditions of the grant award. Applications must be prepared in accordance with the guidance provided in this announcement and the instructions in the attached applications package.

The applicant must be aware that in signing and submitting the application for this award, it is certifying that it will comply with the Federal requirements concerning the drug-free workplace and debarment regulations set forth in Attachments E and F.

B. Application Submission

Applications must be submitted to ACF by the closing date. Refer to "**CLOSING DATE**" at the beginning of this document for the specific date.

1. *Deadlines.* Applications should be considered as meeting the deadline if they are either:

a. Received on or before the deadline date at the Department of Health and

Human Services, Administration for Children and Families, Division of Discretionary Grants, (OCS–93–04/ ZC:ZG) 370 L'Enfant Promenade, SW., Washington, DC 20447; or,

b. Sent on or before the deadline date and received by the granting agency in time for them to be considered during the competitive review and evaluation process under DHHS GAM Chapter 1–62. (Applicants are cautioned to request a legibly dated U.S. Postal Service postmark or to obtain a legibly dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks are not acceptable as proof of timely mailing.)

2. *Applications submitted by other means.* Applications which are not submitted in accordance with the above criteria shall be considered as meeting the deadline only if they are physically received before the close of business on or before the deadline date. Hand delivered applications will be accepted at the Department of Health and Human Services, Administration for Children and Families, Division of Discretionary Grants, 901 D Street, SW., 6th Floor, Washington, DC during the normal working hours of 8:30 a.m. to 5 p.m., Monday through Friday.

3. *Late Applications.* Applications which do not meet one of these criteria are considered late applications. The ACF Division of Discretionary Grants will notify each late applicant that its application will not be considered in this competition.

4. *Extension of Deadline.* The ACF Office of Community Services may extend the deadline for all applicants because of acts of God such as floods, hurricanes, etc., or when there is a widespread disruption of the mails. However, if the OCS does not extend the deadline for all applicants, it may not waive or extend the deadline for any applicants.

Applications once submitted are considered final and no additional materials will be accepted.

One signed original application and two copies should be submitted.

C. Application Consideration

All applications that meet the published deadline for submission will be screened to determine completeness and conformity to the requirements of this announcement. Applications meeting the above screening requirements will be reviewed competitively and scored against the criteria outlined in Part IV of this announcement. The review will be conducted in Washington, DC. Such applications will be referred to reviewers knowledgeable about programs dealing with housing, community action and supportive services. Reviewers will provide a numerical score and explanatory comments based solely on responsiveness to program requirements and evaluation criteria published in this announcement. Reviewers' scores will weigh heavily in funding decisions but may not be the only factor considered. Applications generally will be considered in order of the average scores assigned by reviewers. However, highly ranked applications are not guaranteed funding as other factors are considered, including: Comments of reviewers and government officials; staff evaluation and input; geographic distribution; previous program performance of applicants; compliance with grant terms under previous DHHS grants; audit reports; investigative reports; and applicant's progress in resolving any final audit disallowances on previous OCS or other Federal agency grants.

OCS reserves the right to discuss applications with other Federal or non-Federal funding sources to ascertain the applicant's performance record.

The results of the competitive review will assist the Director of the Office of Community Services, in considering competing applications. Consideration will be given to ensuring that a variety of geographic areas are served, that projects with different auspices are selected and that various project designs and models are represented.

Successful applicants will be notified through a Notice of Grant Award. The award will state the amount of Federal funds awarded, the terms and conditions of the grant award, the effective date of the grant, the total project period and the budget period.

D. Intergovernmental Review

This program is covered under Executive Order 12372, "Intergovernmental Review of Federal Programs," and 45 CFR part 100, "Intergovernmental Review of Department of Health and Human Services Programs and Activities." Under the Order, States may design their own processes for reviewing and commenting on proposed Federal assistance under covered programs.

All States and Territories except Alabama, Alaska, Idaho, Kansas, Louisiana, Minnesota, Montana, Nebraska, Pennsylvania, Oklahoma, Oregon, Virginia, Washington, American Samoa and Palau have elected to participate in the Executive Order process and have established Single Points of Contact (SPOCs). (See Attachment G) Applicants from these fifteen jurisdictions need take no action regarding E.O. 12372. Applicants for projects to be administered by Federally-recognized Indian Tribes are also exempt from the requirements of E.O. 12372. Otherwise, applicants should contact their SPOCs as soon as possible to alert them of the prospective applications and receive any necessary instructions. Applicants must submit any required material to the SPOCs as soon as possible so that the program office can obtain and review SPOC comments as part of the award process. It is imperative that the applicant submit all required materials, if any, to the SPOC and indicate the date of this submittal (or the date of contact if no submittal is required) on the Standard Form 424, item 16a.

Under 45 CFR 100.8(a)(2), a SPOC has 60 days from the application announcement date to comment on proposed new or competing continuation awards. However, because applications are due 30 days from the date of the announcement and grants are to be awarded in September, there is not sufficient time to allow for a complete SPOC comment period. Therefore, we have reduced the comment period to 30 days from July 20, 1993 (August 19, 1993).

SPOCs are encouraged to eliminate the submission of routine endorsements as official recommendations. Additionally, SPOCs are requested to clearly differentiate between mere advisory comments and those official State process recommendations which they intend to trigger the "accommodate or explain" rule.

When comments are submitted directly to ACF, they should be addressed to: Department of Health and Human Services, Administration for Children and Families, Division of Discretionary Grants, (OCS–93–04/ ZC:ZG), 370 L'Enfant Promenade SW., 6th Floor, Washington, DC 20447.

A list of the Single Points of Contact for each State and Territory is included as Attachment G of this announcement.

Part VI: Instructions for Completing Applications

(Approved by the Office of Management and Budget under Control Number 0970–0062 date of expiration 09–30–93.)

The standard forms attached to this announcement shall be used when submitting applications for all funds under this announcement. It is suggested that you reproduce single-sided copies of the SF–424 and SF–424A, and type your application on the copies. If an item on the SF–424 cannot be answered or does not appear to be

related or relevant to the assistance requested, write "NA" for "Not Applicable". If your submission on an item needs further explanation or is not directly responsive to the item requested, please explain or provide commentary in Item Number 23. This item may be extended by use of an additional sheet of paper, appropriately identified.

Prepare your application in accordance with instructions provided on the forms as well as with the OCS specific instructions set forth below:

A. SF–414—"Application for Federal Assistance" (see Attachment B)

Item 1. For the purpose of this announcement, all projects are considered "Applications"; there are no "Pre-Applications" and no Construction projects. Accordingly, check the "Non-Construction" box.

Item 2. "Date Submitted" and "Applicant Identifier"—Date application is submitted to ACF and applicant's own internal control number, if applicable.

Item 3. "Date received by State"—N/A

Item 4. "Date received by Federal Agency"—Leave blank

Item 5 and 6. The legal name of the applicant must match that listed as corresponding to the Employer Identification Number. Where the applicant is a previous Department of Health and Human Services grantee, enter the Central Registry System Employee Identification Number (CRS/EIN) and the Payment Identifying Number, if one has been assigned, in the Block entitled "Federal Identifier" located at the top right hand corner of the form.

Item 7. Mark the appropriate box. If the applicant is a non-profit corporation, enter "N" in the box and specify "non-profit corporation" in the space marked "other". Proof of non-profit status, such as IRS determination, Articles of Incorporation, or By-Laws, must be included as an appendix to the project narrative.

Item 8. "Type of Application"—Please indicate the type of application.

Item 9. "Name of Federal Agency"—Enter DHHS–ACF/OCS

Item 10. The Catalog of Federal Domestic Assistance Number for OCS programs covered under this announcement is 93.578. The title is "Family Support Center and Gateway Demonstration Program".

Item 11. "Descriptive Title of Applicant's Project"—Enter the project title (a brief descriptive title) and the following letter designations must be used:

ZC—Family Support Center
ZG—Gateway Demonstration

Item 12. "Areas Affected by Project"—List only the largest unit or units affected, such as State, county or city.

Item 13. "Proposed Project"—Enter the desirable starting date for the project and the proposed completion date. Projects may not exceed the maximum duration specified.

Item 14. "Congressional District of Applicant/Project"—Enter the number of the Congressional District where the applicant's principal office is located and the number(s) of the Congressional district(s) where the project will be located.

Item 15a. This amount should be no greater that the amount specified under the Section on *Availability of Funds and Grant Amounts.*

B. SF–424A—"Budget Information-Non-Construction Programs"

(See Attachment C.)

See Instructions accompanying this form as well as the instructions set forth below:

Sections A, B, C, and D should reflect budget estimates for the first year of the project. Section E should present the estimates for Federal assistance for the second year of the project. Grant awardees will be required to submit a "continuation application" for the second year of the project.

In completing these sections, the "Federal Funds" Budget entries should separately identify all Federal funds involved in the project. "Non-Federal" will include mobilized funds from all other sources—applicant, State, and other.

Section A—Budget Summary

Line 1: Column (a): Enter "Family Support Center/Gateway Demonstration Program"; Column (b): Enter 93.578; Columns (c) and (d); Not Applicable for new applications; Columns (e), (f) and (g): enter the appropriate amounts needed to support the project for the first budget period (Maximum $200,000 for Family Support Center; $125,000 for Gateway).

Lines 2–4: Enter same information as above for any other Federal funds proposed to be used in the project. (Please explain status of funds; e.g., approved or requested, etc.)

Section B—Budget Categories

Allocability of costs are governed by applicable cost principles set forth in OMB Circular A–122 and 45 CFR Part 74 (non-governmental) and OMB Circular A–87 and 45 CFR Part 92 (governmental). Budget estimates for all costs must be supported by adequate detail for the grants officer to perform a cost analysis and review. Adequately detailed calculations for each budget object class are those which reflect estimation methods, quantities, unit costs, salaries, and other similar quantitative detail sufficient for the calculations to be duplicated. For any additional object class categories included under the object class "other" identify the additional object class(es) and provide supporting calculations.

Supporting narratives and justifications are required for each budget category, with emphasis on unique/special initiatives; large dollar amounts; local, regional, or other travels; new positions; major equipment purchases and training programs.

A detailed itemized budget with a separate budget justification for each major item should be included, as indicated below.

Personnel—Line 6a. Enter the estimated total costs of salaries and wages.

Justification

Identify the principal investigator or project director, if known. Specify by title or name the percentage of time allocated the project, the individual annual salaries, and the cost to the project of the organization's staff who will be working on the project. Do not include costs of consultants or personnel costs of delegate agencies or of specific project(s) or businesses to be financed by the applicant.

Fringe Benefits—Line 6b: Enter the estimated total cost of fringe benefits unless treated as part of an approved indirect cost rate which is entered on line 6j.

Justification

Provide a breakdown of amounts and percentages that comprise fringe benefit costs, such as health insurance, FICA, retirement insurance, taxes, etc.

Travel—Line 6c: Enter total costs of all travel by employees of the project. Do not enter costs for consultant's travel.

Justification

Include the total number of traveler(s), total number of trips, destinations, number of days, transportation costs and subsistence allowances. Travel costs to attend one national workshop in Washington, D.C. by the project director should be included.

Equipment—Line 6d: Enter the estimated total costs of all non-expendable personal property to be acquired by the project.

"Non-expendable personal property" means tangible personal property having an acquisition cost per unit of $500 or more for non-profit organizations and $5,000 or more for public organizations and have a useful life of one year.

Justification

Only equipment required to conduct the project may be purchased with Federal funds. The applicant organization or its subgrantees must not have such equipment, or a reasonable facsimile, available for use in the project. The justification also must contain plans for future use or disposal of the equipment after the project ends. An applicant may use its own definition of non-expendable personal property, provided that such a definition would at least include all tangible personal property as defined above. (See Line 21 for additional requirements).

Supplies—Line 6e: Enter the total costs of all tangible personal property (supplies) other than that included on line 6d.

Justification

Specify general categories of supplies and their costs.

Contractual—Line 6f: Enter the total costs of all contracts: (1) procurement contracts (except those which belong on other lines such as equipment, supplies, etc.) and (2) contracts with secondary recipient organizations including delegated agencies and specific project(s) or businesses to be financed by the applicant.

Justification

If available at the time of application, attach a list of contractors, indicating the names of the organizations, the purposes of the contracts, the estimated dollar amounts, and selection process of the awards as part of the budget justification. Also provide back-up documentation identifying the name of contractor, purpose of contract, and major cost elements.

Note: Subgrants and Pass-through Activity: Whenever the applicant/grantee intends to delegate part of the program to another agency, thus entering into an interagency agreement, the applicant/grantee must submit Sections A and B of this Form SF–424A, completed for each delegate agency by agency title, along with the required supporting information referenced in the applicable instruction. The total costs of all such agencies will be part of the amount shown on Line 6f. Provide draft Request for Proposal in accordance with 45 CFR part 74, appendix H. Free and open competition is encouraged for any procurement activities planned using ACF grant funds. Applicants who anticipate procurements that will exceed $5,000 (non-governmental entities) or $25,000 (governmental entities) and are requesting an award without competition should include a sole source justification in the proposal which at a minimum should include the basis for contractor's selection, justification for lack of competition when competitive bids or offers are not obtained and basis for award cost or price.

(Note: Previous or past experience with a contractor is not sufficient justification for sole source.)

For successful applicants, the Financial Assistance Award may cite under Remarks, item 26, approval of this action. Also include any contracts with organizations for the provision of technical assistance.

Construction—Line 6g: New construction costs are not permitted under this program. This line may be used for renovation costs.

Other—Line 6h: Enter the estimated total of all other costs. Such costs, where applicable, may include, but are not limited to, insurance, food, medical and dental costs (noncontractual), space and equipment rentals, printing and publication, computer use, training costs including tuition, training service costs including wage payments to individuals and supportive service payments, and staff development costs.

Indirect Charges—Line 6j: Enter the total amount of indirect costs. Thisline generally should be used only when the applicant currently has an indirect cost rate approved by the Department of Health and Human Services or other Federal agency. With the exception of local governments, applicants should enclose a copy of a current rate agreement negotiated with a Federal agency including the Department of Health and Human Services. If the applicant organization is renegotiating a rate, it should immediately upon notification that an award will be made, develop a tentative indirect cost rate proposal based on its most recently completed fiscal year in accordance with the principles set forth in the pertinent DHHS Guide for Establishing Indirect Cost Rates, and submit it to the appropriate DHHS Regional Office.

It should be noted that when an indirect cost rate is requested, those costs included in the indirect cost pool should not be also charged as direct costs to the grant.

Total—Line 6k: Enter total amounts of lines 6i and 6j.

Program Income—Line 7: Enter the estimated amount of income, if any, expected to be generated from this project. Separately show expected program income generated from OCS support and income generated from other mobilized funds. Do not add or subtract this amount from the budget total. Show the nature and source of income in the program narrative statement.

Justification

Describe the nature, source and anticipated use of program income in the Program Narrative Statement.

Section C—Non-Federal Resources

This section is to record the amounts of "non-Federal" resources that will be used to support the project. Provide a brief explanation, on a separate sheet, showing the type of contribution, broken out by Object Class Category, and whether it is cash or third-party in-kind. The firm commitment of these funds should be documented and submitted with the application in order to be given full credit in the review criteria.

Justification

Describe all non-Federal resources including third-party, cash and/or in-kind contributions. Except in unusual situations, this documentation should be in the form of letters of commitment from the organization(s)/individuals from which funds will be received.

Grant Program—Line 8. Grant Program.

Column (a): Enter the project title.

Column (b): Enter the amount of cash or donations to be made by the applicant.

Column (c): Enter the other contribution.

Column (d): Enter the amount of cash and third-party, in-kind contributions to be made from all other sources.

Column (e): Enter the total of columns (b), (c), and (d).

Grant Program—Lines 9, 10, and 11 should be left blank.

Grant Program—Line 12. Carry the total of each column of Line 8, (b) through (e). The amount in Column (e) should be equal to the amount on Section A, Line 5, column (f).

Section D—Forecasted Cash Needs

Federal—Line 13. Enter the amount of Federal (OCS) cash needed for this grant, by quarter, during the first 12-month budget period.

Non-Federal—Line 14. Enter the amount of cash from all other sources needed by quarter during the first year.

Total—Line 15. Enter the total of Lines 13 and 14.

Section E—Budget Estimates of Federal Funds Needed for Balance of Project

Applicants for two year projects will complete line 16, (a), (b) and (c).

Column (a) refers respectively to the second year of the project.

Section F—Other Budget Information

Direct Charges—Line 21. Use this space and continuation sheets as necessary to fully explain and justify the major items included in the budget categories shown in Section B. Include sufficient detail to facilitate determination of allowability, relevance to the project, and cost benefits. Particular attention must be given to the explanation of any requested direct cost budget item which requires explicit approval by the Federal agency. Budget items which require identification and justification shall include, but not be limited to, the following:

A. Salary amounts and percentage of time worked for those key individuals who are identified in the project narrative;

B. Any foreign travel;

C. A list of all equipment and estimated cost of each item to be purchased wholly or in part with grant funds which meet the definition of nonexpendable personal property provided on Line 6d, Section B. Need for equipment must be supported in program narrative;

D. Contractual: major items or groups of smaller items; and

E. Other: group into major categories all costs for consultants, local transportation, space, rental, training allowances, staff training, computer equipment, etc. Provide a complete breakdown of all costs that make up this category.

Indirect Charges—Line 22. Enter the type of HHS or other Federal agency approved indirect cost rate (provisional, predetermined, final or fixed) that will be in effect during the funding period, the estimated amount of the base to which the rate is applied and the total indirect expense. Also, enter the date the rate was approved and attach a copy of the rate agreement.

Remarks—Line 23. Provide any other explanations and continuation sheets required or deemed necessary to justify or explain the budget information.

C. SF–424B—"Assurances-Non-Construction"

All applicants must fill out, sign, date and return the "Assurances" (see Attachment D) with the application.

Part VII—Contents of Application and Receipt Process

A. Contents of Application

Each application submission should include a signed original and two additional copies of the application. Each application should include the following in the order presented:

1. Table of Contents;
2. Completed Standard Form 424 which has been signed by an Official of the organization applying for the grant who has authority to obligate the organization legally. [Note: the original SF–424 must bear the original signature of the authorizing representative of the applicant organization]
3. "Budget Information-Non-Construction Programs" (SF–424A);
4. A narrative budget justification for each object class category required under Section B, SF–424A;
5. Filled out, signed, and dated "Assurances-Non-Construction Programs" (SF–424B);
6. The applicant should sign Attachment E. In so doing, the applicant is certifying that it will comply with the Federal requirements concerning the drug-free workplace and debarment regulations set forth in Attachment E and F.
7. Restrictions on Lobbying, Certification for Contracts, Grants, Loans, and Cooperative Agreements: fill out, sign and date form found at Attachment H.
8. An Executive Summary—not to exceed one page.
9. Appendices, including (where applicable) proof of non-profit status; proof that the organization is a community development corporation, commitments from service providing organizations, where applicable; Single Point of Contact comments, if applicable; Maintenance of Effort Certification and resumes.

The total number of pages for the entire application package, excluding Appendices, should not exceed 50 pages. Pages should be numbered sequentially throughout, excluding Appendices, beginning with the SF–424 as Page #1.

Applications must be uniform in composition since OCS may find it necessary to duplicate them for review purposes. Therefore, applications must be submitted on white 8½×11 inch paper only. They must not include colored, oversized or folded materials. Do not include organizational brochures or other promotional materials, slides, films, clips, etc. in the proposal. They will be discarded if included. The applications should be two-holed punched at the top center and fastened separately with a compressor slide paper fastener, such as an ACCO clip, or a binder clip. The submission of bound applications, or applications enclosed in binders, is specifically discouraged.

B. Acknowledgement of Receipt

All applicants who meet the initial screening criteria outlined in Part V, Section C will receive an acknowledgement notice with an assigned identification number. Applicants are requested to supply a self-addressed mailing label with their application which can be attached to the acknowledgement postcard. This number and the program priority area letter code must be referred to in all subsequent communications with OCS concerning the application. If an acknowledgement is not received within three weeks after the deadline date, please notify ACF by telephone (202) 401–9234.

Part VIII: Post-Award Information and Reporting Requirements

Following approval of the applications selected for funding, notice of project approval and authority to draw down project funds will be made in writing. The official award document is the Financial Assistance Award which provides the amount of Federal funds approved for use in the project, the project and budget periods for which support is provided, the terms and conditions of the award, and the total project period for which support is contemplated.

In addition to the General Conditions and Special Conditions (where the latter are warranted) which will be applicable to grants, grantees will be subject to the provisions of 45 CFR parts 74 (non-governmental) and 92 (governmental).

Grantees will be required to submit quarterly progress and financial reports (SF 269) throughout the project period, as well as a final progress and financial report within 90 days of the termination of the project. These reports will be submitted in accordance with instructions to be provided by OCS, and will be the basis for any dissemination effort conducted by the Office of Community Services.

Grantees are subject to the audit requirements in 45 CFR parts 74 and 92 and OMB Circular A–133.

Attachment I indicates the regulations which apply to all applicants/grantees under the Family Support Center and Gateway Demonstration Programs.

Dated: June 9, 1993.

Jacqueline G. Lemire,

Acting Director, Office of Community Services.

ATTACHMENT A.—1993 POVERTY INCOME GUIDELINES FOR ALL STATES (EXCEPT ALASKA AND HAWAII) AND THE DISTRICT OF COLUMBIA

Size of family unit	Poverty guideline
1	$6,970
2	9,430
3	11,890
4	14,350
5	16,810
6	19,270
7	21,730
8[1]	24,190
Poverty Income Guidelines for Alaska:	
1	$8,700
2	11,780
3	14,860
4	17,940
5	21,020
6	24,100
7	27,180
8[2]	30,260
Poverty Income Guidelines for Hawaii:	
1	$8,040
2	10,860
3	13,680
4	16,500
5	19,320
6	22,140
7	24,960
8[3]	27,780

[1] For family units with more than 8 members, add $3,080 for each additional member.

[2] For family units with more than 8 members, add $2,460 for each additional member.

[3] For family units with more than 8 members, add $2,820 for each additional member.

[BILLING CODE 4184-01-M]

Attachment B

OMB Approval No. 0348-0043

APPLICATION FOR FEDERAL ASSISTANCE

1. TYPE OF SUBMISSION	Application	Preapplication
	☐ Construction	☐ Construction
	☐ Non-Construction	☐ Non-Construction

2. DATE SUBMITTED	Applicant Identifier
3. DATE RECEIVED BY STATE	State Application Identifier
4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier

5. APPLICANT INFORMATION

Legal Name:	Organizational Unit:
Address (give city, county, state, and zip code):	Name and telephone number of the person to be contacted on matters involving this application (give area code)

6. EMPLOYER IDENTIFICATION NUMBER (EIN): ☐☐ – ☐☐☐☐☐☐☐

7. TYPE OF APPLICANT: (enter appropriate letter in box) ☐

A. State
B. County
C. Municipal
D. Township
E. Interstate
F. Intermunicipal
G. Special District
H. Independent School Dist.
I. State Controlled Institution of Higher Learning
J. Private University
K. Indian Tribe
L. Individual
M. Profit Organization
N. Other (Specify): _____

8. TYPE OF APPLICATION:

☐ New ☐ Continuation ☐ Revision

If Revision, enter appropriate letter(s) in box(es): ☐ ☐

A. Increase Award B. Decrease Award C. Increase Duration
D. Decrease Duration Other (specify): _____

9. NAME OF FEDERAL AGENCY:

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: ☐☐ . ☐☐☐

TITLE:

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:

12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.):

13. PROPOSED PROJECT: Start Date	Ending Date	14. CONGRESSIONAL DISTRICTS OF: a. Applicant	b. Project

15. ESTIMATED FUNDING:		
a. Federal	$	.00
b. Applicant	$	.00
c. State	$	.00
d. Local	$	.00
e. Other	$	.00
f. Program Income	$	.00
g. TOTAL	$	.00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE _____

b. NO. ☐ PROGRAM IS NOT COVERED BY E.O. 12372

☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yes If "Yes," attach an explanation. ☐ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED

a. Typed Name of Authorized Representative	b. Title	c. Telephone number
d. Signature of Authorized Representative		e. Date Signed

Previous Editions Not Usable

Standard Form 424 (REV 4-88)
Prescribed by OMB Circular A-102

BILLING CODE 4184-01-C

Authorized for Local Reproduction

Instructions for the SF–424

This is a standard form used by applicants as a required facesheet for preapplications and applications submitted for Federal assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

Item and Entry:

1. Self-explanatory.

2. Date application submitted to Federal agency (or State if applicable) & applicant's control number (if applicable).

3. State use only (if applicable).

4. If this application is to continue or revise an existing award, enter present Federal identifier number. If for a new project, leave blank.

5. Legal name of applicant, name of primary organizational unit which will undertake the assistance activity, complete address of the applicant, and name and telephone number of the person to contact on matters related to this application.

6. Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service.

7. Enter the appropriate letter in the space provided.

8. Check appropriate box and enter appropriate letter(s) in the space(s) provided:

—"New" means a new assistance award.

—"Continuation" means an extension for an additional funding/budget period for a project with a projected completion date.

—"Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation.

9. Name of Federal agency from which assistance is being requested with this application.

10. Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested.

11. Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplications, use a separate sheet to provide a summary description of this project.

12. List only the largest political entities affected (e.g., State, counties, cities).

13. Self-explanatory.

14. List the applicant's Congressional District and any District(s) affected by the program or project.

15. Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, indicate *only* the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15.

16. Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process.

17. This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit disallowances, loans and taxes.

18. To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.)

BILLING CODE 4184–01–M

OMB Approval No. 0348-0044

BUDGET INFORMATION — Non-Construction Programs

SECTION A – BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1.		$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES

6 Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1)	(2)	(3)	(4)	Total (5)
a. Personnel	$	$	$	$	$
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a - 6h)					
j. Indirect Charges					
k. TOTALS (sum of 6i and 6j)	$	$	$	$	$
7. Program Income	$	$	$	$	$

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Standard Form 424A (4-88)
Prescribed by OMB Circular A-102

SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8.	$	$	$	$
9.				
10				
11				
12. TOTALS (sum of lines 8 and 11)	$	$	$	$

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$	$	$	$	$
14. NonFederal					
15. TOTAL (sum of lines 13 and 14)	$	$	$	$	$

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16.	$	$	$	$
17.				
18.				
19.				
20. TOTALS (sum of lines 16 -19)	$	$	$	$

SECTION F - OTHER BUDGET INFORMATION

(Attach additional Sheets if Necessary)

21. Direct Charges:	22. Indirect Charges:
23. Remarks	

SF 424A (4-88) Page 2
Prescribed by OMB Circular A-102

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Instructions for the SF–424A

General Instructions

This form is designed so that application can be made for funds from one or more grant programs. In preparing the budget, adhere to any existing Federal grantor agency guidelines which prescribe how and whether budgeted amounts should be separately shown for different functions or activities within the program. For some programs, grantor agencies may require budgets to be separately shown by function or activity. For other programs, grantor agencies may require a breakdown by function or activity. Sections A, B, C, and D should include budget estimates for the whole project except when applying for assistance which requires Federal authorization in annual or other funding period increments. In the latter case, Sections A, B, C, and D should provide the budget for the first budget period (usually a year) and Section E should present the need for Federal assistance in the subsequent budget periods. All applications should contain a breakdown by the object class categories shown in Lines a–k of Section B.

Section A. Budget Summary

Lines 1–4, Columns (a) and (b)—For applications pertaining to a *single* Federal grant program (Federal Domestic Assistance Catalog number) and *not requiring* a functional or activity breakdown, enter on Line 1 under Column (a) the catalog program title and the catalog number in Column (b).

For applications pertaining to a *single* program *requiring* budget amounts by multiple functions of activities, enter the name of each activity or function on each line in Column (a), and enter the catalog number in Column (b). For applications pertaining to multiple programs where none of the programs require a breakdown by function or activity, enter the catalog program title on each line in *Column (a)* and the respective catalog number on each line in Column (b).

For applications pertaining to *multiple* programs where one or more programs *require* a breakdown by function or activity, prepare a separate sheet for each program requiring the breakdown. Additional sheets should be used when one form does not provide adequate space for all breakdown of data required. However, when more than one sheet is used, the first page should provide the summary totals by programs.

Lines 1–4, Columns (c) through (g.)—*For new applications*, leave Columns (c) and (d) blank. For each line entry in Columns (a) and (b), enter in Columns (e), (f), and (g) the appropriate amounts of funds needed to support the project for the first funding period (usually a year).

For continuing grant program applications, submit these forms before the end of each funding period as required by the grantor agency. Enter in Columns (c) and (d) the estimated amounts of funds which will remain unobligated at the end of the grant funding period only if the Federal grantor agency instructions provide for this. Otherwise, leave these columns blank. Enter in columns (e) and (f) the amounts of funds needed for the upcoming period. The amount(s) in Column (g) should be the sum of amounts in Columns (e) and (f).

For supplemental grants and changes to existing grants, do not use Columns (c) and (d). Enter in Column (e) the amount of the increase or decrease of Federal funds and enter in Column (f) the amount of the increase or decrease of non-Federal funds. In Column (g) enter the new total budgeted amount (Federal and non-Federal) which includes the total previous authorized budgeted amounts plus or minus, as appropriate, the amounts shown in Columns (e) and (f). The amount(s) in Column (g) should not equal the sum of amounts in Columns (e) and (f).

Line 5—Show the totals for all columns used.

Section B. Budget Categories

In the column headings (1) through (4), enter the titles of the same programs, functions, and activities shown on Lines 1–4, Column (a), Section A. When additional sheets are prepared for Section A, provide similar column headings on each sheet. For each program, function or activity, fill in the total requirements for funds (both Federal and non-Federal) by object class categories.

Lines 6 a–i—Show the totals of Lines 6a to 6h in each column.

Line 6j—Show the amount of indirect cost.

Line 6k—Enter the total of amounts on Lines 6i and 6j. For all applications for new grants and continuation grants the total amount in column (5), Line 6k, should be the same as the total amount shown in Section A, Column (g), Line 5. For supplemental grants and changes to grants, the total amount of the increase or decrease as shown in Columns (1)–(4), Line 6k should be the same as the sum of the amounts in Section A, Columns (e) and (f) on Line 5.

Line 7—Enter the estimated amount of income, if any, expected to be generated from this project. Do not add or subtract this amount from the total project amount. Show under the program narrative statement the nature and source of income. The estimated amount of program income may be considered by the federal grantor agency in determining the total amount of the grant.

Section C. Non-Federal-Resources

Lines 8–11—Enter amounts of non-Federal resources that will be used on the grant. If in-kind contributions are included, provide a brief explanation on a separate sheet.

Column (a)—Enter the program titles identical to Column (a), Section A. A breakdown by function or activity is not necessary.

Column (b)—Enter the contribution to be made by the applicant.

Column (c)—Enter the amount of the State's cash and in-kind contribution if the applicant is not a State or State agency. Applicants which are a State or State agencies should leave this column blank.

Column (d)—Enter the amount of cash and in kind contributions to be made from all other sources.

Columb (e)—Enter totals of Columns (b), (c), and (d).

Line 12—Enter the total for each of Columns (b)–(e). The amount in Column (e) should be equal to the amount on Line 5, Column (f), Section A.

Section D. Forecasted Cash Needs

Line 13—Enter the amount of cash needed by quarter from the grantor agency during the first year.

Line 14—Enter the amount of cash from all other sources needed by quarter during the first year.

Line 15—Enter the totals of amounts on Lines 13 and 14.

Section E. Budget Estimates of Federal Funds Needed for Balance of the Project

Lines 16–19—Enter in Column (a) the same grant program titles shown in Column (a), Section A. A breakdown by function or activity is not necessary. For new applications and continuation grant applications, enter in the proper columns amounts of Federal funds which will be needed to complete the program or project over the succeeding funding periods (usually in years). This section need not be completed for revisions (amendments, changes, or supplements) to funds for the current year of existing grants.

If more than four lines are needed to list the program titles, submit additional schedules as necessary.

Line 20—Enter the total for each of the Columns (b)–(e). When additional schedules are prepared for this Section, annotate accordingly and show the overall totals on this line.

Section F. Other Budget Information

Line 21—Use this space to explain amounts for individual direct object-class cost categories that may appear to be out of the ordinary or to explain the details as required by the Federal grantor agency.

Line 22—Enter the type of indirect rate (provisional, predetermined, final or fixed) that will be in effect during the funding period, the estimated amount of the base to which the rate is applied, and the total indirect expense.

Line 23—Provide any other explanations or comments deemed necessary.

BILLING CODE 4184-01-M

Attachment D

OMB Approval No. 0348-0040

ASSURANCES — NON-CONSTRUCTION PROGRAMS

Note: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§ 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U S.C.§§ 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse, (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply with the provisions of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§ 276a to 276a-7), the Copeland Act (40 U.S.C. § 276c and 18 U.S.C. §§ 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), regarding labor standards for federally assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program andto purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. § 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§ 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984.

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
APPLICANT ORGANIZATION	DATE SUBMITTED

Attachment E

U.S. Department of Health and Human Services
Certification Regarding Drug-Free Workplace Requirements
Grantees Other Than Individuals

By signing and/or submitting this application or grant agreement, the grantee is providing the certification set out below.

This certification is required by regulations implementing the Drug-Free Workplace Act of 1988, 45 CFR Part 76, Subpart F. The regulations, published in the May 25, 1990 **Federal Register**, require certification by grantees that they will maintain a drug-free workplace. The certification set out below is a material representation of fact upon which reliance will be placed when the Department of Health and Human Services (HHS) determines to award the grant. If it is later determined that the grantee knowingly rendered a false certification, or otherwise violates the requirements of the Drug-Free Workplace Act, HHS, in addition to any other remedies available to the Federal Government, may taken action authorized under the Drug-Free Workplace Act. False certification or violation of the certification shall be grounds for suspension of payments, suspension or termination of grants, or governmentwide suspension or debarment.

Workplaces under grants, for grantees other than individuals, need not be identified on the certification. If known, they may be identified in the grant application. If the grantee does not identify the workplaces at the time of application, or upon award, if there is no application, the grantee must keep the identity of the workplace(s) on file in its office and make the information available for Federal inspection. Failure to identify all known workplaces constitutes a violation of the grantee's drug-free workplace requirements.

Workplace identifications must include the actual address of buildings (or parts of buildings) or other sites where work under the grant takes place. Categorical descriptions may be used (e.g., all vehicles of a mass transit authority or State highway department while in operation, State employees in each local unemployment office, performers in concert halls or radio studios.)

If the workplace identified to HHS changes during the performance of the grant, the grantee shall inform the agency of the change(s), if it previously identified the workplaces in question (see above).

Definitions of terms in the Nonprocurement Suspension and Debarment common rule and Drug-Free Workplace common rule apply to this certification. Grantees' attention is called, in particular, to the following definitions from these rules:

"**Controlled substance**" means a controlled substance in Schedules I through V of the Controlled Substances Act (21 USC 812) and as further defined by regulation (21 CFR 1308.11 through 1308.15).

"**Conviction**" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes;

"**Criminal drug statute**" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, use, or possession of any controlled substance;

"**Employee**" means the employee of a grantee directly engaged in the performance of work under a grant, including: (i) All "direct charge" employees; (ii) all "indirect charge" employees unless their impact or involvement is insignificant to the performance of the grant; and, (iii) temporary personnel and consultants who are directly engaged in the performance of work under the grant and who are on the grantee's payroll. This definition does not include workers not on the payroll of the grantee (e.g., volunteers, even if used to meet a matching requirement; consultants or independent contractors not on the grantee's payroll; or employees of subrecipients or subcontractors in covered workplaces).

The grantee certifies that it will or will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an ongoing drug-free awareness program to inform employees about:

(1) The dangers of drug abuse in the workplace; (2) The grantee's policy of maintaining a drug-free workplace; (3) Any available drug counseling, rehabilitation, and employee assistance programs; and, (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will:

(1) Abide by the terms of the statement; and, (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;

(e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted:

(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or, (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant (use attachments, if needed):

Place of Performance (Street address, City, County, State, ZIP Code)_____

_____

Check ___ if there are workplaces on file that are not identified here.

Sections 76.630(c) and (d)(2) and 76.635(a)(1) and (b) provide that a Federal agency may designate a central receipt point for STATE-WIDE AND STATE AGENCY-WIDE certifications, and for notification of criminal drug convictions. For the Department of Health and Human Services, the central receipt point is: Division of Grants Management and Oversight, Office of Management and Acquisition, Department of Health and Human Services, Room 517-D, 200 Independence Avenue, S.W., Washington, D.C. 20201.

DGMO Form#2 Revised May 1990

BILLING CODE 4184-01-C

Attachment F—Certification Regarding Debarment, Suspension, and Other Responsibility Matters—Primary Covered Transactions

By signing and submitting this proposal, the applicant, defined as the primary participant in accordance with 45 CFR Part 76, certifies to the best of its knowledge and believe that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal Department or agency;

(b) Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

The inability of a person to provide the certification required above will not necessarily result in denial of participation in this covered transaction. If necessary, the prospective participant shall submit an explanation of why it cannot provide the certification. The certification or explanation will be considered in connection with the Department of Health and Human Services (HHS) determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

The prospective primary participant agrees that by submitting this proposal, it will include the clause entitled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion—Lower Tier Covered Transaction" provided below without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Covered Transactions (To Be Supplied to Lower Tire Participants)

By signing and submitting this lower tier proposal, the prospective lower tier participant, as defined in 45 CFR Part 76, certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

(b) Where the prospective lower tier participant is unable to certify to any of the above, such prospective participant shall attach an explanation to this proposal.

The prospective lower tier participant further agrees by submitting this proposal that it will include this clause entitled "certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion—Lower Tier Covered Transactions. "without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

Attachment G—State Single Points of Contact

Arizona

Mrs. Janice Dunn
Arizona State Clearinghouse
3800 N. Central Avenue
Fourteenth Floor
Phoenix, Arizona 85012
Telephone (602) 280–1315

Arkansas

Mr. Joseph Gillesbie
Manager, State Clearinghouse
Office of Intergovernmental Service
Department of Finance and Administration
P.O. Box 3278
Little Rock, Arkansas 72203
Telephone (501) 371–1074

California

Glenn Stober
Grants Coordinator
Office of Planning and Research
1400 Tenth Street
Sacramento, California 95814
Telephone (916) 323–7480

Colorado

State Single Point of Contact
State Clearinghouse
Division of Local Government
1313 Sherman Street, Room 520
Denver, Colorado 80203
Telephone (303) 866–2156

Connecticut

Under Secretary
ATTN: Intergovernmental Review Coordinator
Comprehensive Planning Division
Office of Policy and Management
80 Washington Street
Hartford, Connecticut 06106–4459
Telephone (203) 566–3410

Delaware

Ms. Francine Booth
State Single Point of Contact
Executive Department
Thomas Collins Building
Dover, Delaware 19903
Telephone (302) 736–3326

District of Columbia

Ms. Lovetta Davis
State Single Point of Contact
Executive Office of the Mayor
Office of Intergovernmental Relations
Room 416, District Building
1350 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
Telephone (202) 727–9111

Florida

Ms. Karen McFarland
Director, Florida State Clearinghouse
Executive Office of the Governor
Office of Planning and Budgeting
The Capitol
Tallahassee, Florida 32399–0001
Telephone (904) 488–8114

Georgia

Mr. Charles H. Badger
Administrator
Georgia State Clearinghouse
270 Washington Street, S.W.
Atlanta, Georgia 30334
Telephone (404) 656–3855

Hawaii

Mr. Harold S. Masumoto
Acting Director
Office of State Planning
Department of Planning and Economic Development
Office of the Governor
State Capitol—Room 406
Honolulu, Hawaii 96813
Telephone (808) 548–5893
FAX (808) 548–8172

Illinois

Mr. Tom Berkshire
State Single Point of Contact
Office of the Governor
State of Illinois
Springfield, Illinois 62706
Telephone (217) 782–8639

Indiana

Mr. Frank Sullivan
Budget Director
State Budget Agency
212 State House
Indianapolis, Indiana 46204
Telephone (317) 232–5610

Iowa

Mr. Steven R. McCann
Division of Community Progress
Iowa Department of Economic Development
200 East Grand Avenue
Des Moines, Iowa 50309
Telephone (515) 281–3725

Kentucky

Ms. Debbie Anglin
State Single Point of Contact
Kentucky State Clearinghouse
2nd Floor, Capital Plaza Tower
Frankfort, Kentucky 40601
Telephone (502) 564–2382

Maine

State Single Point of Contact
ATTN: Ms. Joyce Benson
State Planning Office
State House Station #38
Augusta, Maine 04333
Telephone (207) 289–3261

Maryland

Ms. Mary Abrams
Chief, Maryland State Clearinghouse
Department of State Planning
301 West Preston Street
Baltimore, Maryland 21201–2365

Telephone (301) 225–4490

Massachusetts

State Single Point of Contact
ATTN: Ms. Beverly Boyle
Executive Office of Communities and Development
100 Cambridge Street, Room 1803
Boston, Massachusetts 02202
Telephone (617) 727–7001

Michigan

Mr. Milton O. Waters
Director of Operations
Michigan Neighborhood Builders Alliance
Michigan Department of Commerce
Lansing, Michigan 48909
Telephone (517) 373–7111

Please direct correspondence to:
Manager, Federal Project Review
Michigan Department of Commerce
Michigan Neighborhood Builders Alliance
P.O. Box 30242
Lansing, Michigan 48909
Telephone (517) 373–6223

Mississippi

Ms. Cathy Mallette
Clearinghouse Officer
Department of Finance and Administration
Office of Policy Development
421 West Pascagoula Street
Jackson, Mississippi 39203
Telephone (601) 960–4280

Missouri

Ms. Lois Pohl
Federal Assistance Clearinghouse
Office of Administration
Division of General Services
P.O. Box 809
Room 430, Truman Building
Jefferson City, Missouri 65102
Telephone (314) 751–4834

Nevada

Department of Administration
State Clearinghouse
Capitol Complex
Carson City, Nevada 89710
Attn: Mr. John B. Walker
Clearinghouse Coordinator
Telephone (702) 687–4420

New Hampshire

Mr. Jeffrey H. Taylor
Director
New Hampshire Office of State Planning
Attn: Intergovernmental Review Process/ James E. Bieber
2½ Beacon Street
Concord, New Hampshire 03301
Telephone (603) 271–2155

New Jersey

Mr. Barry Skokowski
Director
Division of Local Government Services
Department of Community Affairs, CN 803
Trenton, New Jersey 08625–0803
Telephone (609) 292–6613

Please direct correspondence and questions to:
Nelson S. Silver, State Review Process
Division of Local Government Services, CN 803
Trenton, New Jersey 08625–0803
Telephone (609) 292–9025

New Mexico

Aurelia M. Sandoval
State Budget Division
Department of Finance & Administration
Room 190, Bataan Memorial Building
Santa Fe, New Mexico 87503
Telephone (505) 827–3640
Fax (505) 827–3006

New York

New York State Clearinghouse
Division of the Budget
State Capitol
Albany, New York 12224
Telephone (518) 474–1605

North Carolina

Mrs. Chrys Baggett, Director
Intergovernmental Relations
N.C. Department of Administration
116 W. Jones Street
Raleigh, North Carolina 27611
Telephone (919) 733–0499

North Dakota

Mr. William Robinson
State Single Point of Contact
Office of Intergovernmental Affairs
Office of Management and Budget
14th Floor, State Capitol
Bismarck, North Dakota 58505
Telephone (701) 224–2094

Ohio

Mr. Larry Weaver
State Single Point of Contact
State/Federal Funds Coordinator
State Clearinghouse
Office of Budget and Management
30 East Broad Street, 34th Floor
Columbus, Ohio 43266–0411
Telephone (614) 466–0698

Rhode Island

Mr. Daniel W. Varin, Associate Director
Statewide Planning Program
Department of Administration
Division of Planning
265 Melrose Street
Providence, Rhode Island 02907
Telephone (401) 277–2656

Please direct correspondence and questions to: Review Coordinator, Office of Strategic Planning

South Carolina

Mr. Danny L. Cromer
State Single Point of Contact
Grant Services, Office of the Governor
1205 Pendleton Street, Room 477
Columbia, South Carolina 29201
Telephone (803) 734–0493

South Dakota

Ms. Susan Comer
State Clearinghouse Coordinator
Office of the Governor
500 East Capitol
Pierre, South Dakota 57501
Telephone (605) 773–3212

Tennessee

Mr. Charles Brown
State Single Point of Contact
State Planning Office
500 Charlotte Avenue
309 John Sevier Building
Nashville, Tennessee 37219
Telephone (615) 741–1676

Texas

Mr. Thomas Adams
Governor's Office of Budget and Planning
P.O. Box 12428
Austin, Texas 78711
Telephone (512) 463–1778

Utah

Utah State Clearinghouse
Office of Planning and Budget
ATTN: Ms. Carolyn Wright
Room 116 State Capitol
Salt Lake City, Utah 84114
Telephone (801) 538–1535

Vermont

Mr. Bernard D. Johnson, Assistant Director
Office of Policy Research & Coordination
Pavilion Office Building, 109 State Street
Montpelier, Vermont 05602
Telephone (802) 828–3326

West Virginia

Mr. Fred Cutlip, Director
Community Development Division
Governor's Office of Community and Industrial Development
Building #6, Room 553
Charleston, West Virginia 25305
Telephone (304) 348–4010

Wisconsin

Mr. William C. Carey
Federal/State Relations, IGA Relations
101 South Webster Street
P.O. Box 7864
Milwaukee, Wisconsin 53707
Telephone (608) 266–1741

Please direct correspondence and question to: Mr. William C. Carey, Section Chief, Federal-State Relations Office
Wisconsin Department of Administration
Telephone (608) 266–0267

Wyoming

Ms. Ann Redman, State Single Point of Contact
Wyoming State Clearinghouse
State Planning Coordinator's Office
Capitol Building
Cheyenne, Wyoming 82002
Telephone (307) 777–7574

Guam

Mr. Michael J. Reidy, Director
Bureau of Budget and Management Research
Office of the Governor
P.O. Box 2950
Agana, Guam 96910
Telephone (671) 472–2285

Northern Mariana Islands

State Single Point of Contact
Planning and Budget Office
Office of the Governor
Saipan, CM
Northern Mariana Islands 96950

Puerto Rico

Patria Custodio/Israel Soto Marrero
Chairman/Director
Puerto Rico Planning Board

Minillas Government Center
P.O. Box 41119
San Juan, Puerto Rico 00940–9985
Telephone (809) 727–4444

Virgin Islands

Jose L. George, Director
Office of Management and Budget
No. 32 & 33 Kongens Gade
Charlotte Amalie, V.I. 00802
Telephone (809) 774–0750

Attachment H—Certification Regarding Lobbying

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

State for Loan Guarantee and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL "Disclosure Form to Report Lobbying," in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature

Title

Organization

Date

BILLING CODE 4184-01-M

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB
0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action:	2. Status of Federal Action:	3. Report Type:
☐ a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	☐ a. bid/offer/application b. initial award c. post-award	☐ a. initial filing b. material change For Material Change Only: year _____ quarter ____ date of last report _____

4. Name and Address of Reporting Entity:	5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:
☐ Prime ☐ Subawardee Tier _____, *if known*: Congressional District, *if known*:	Congressional District, *if known*:
6. Federal Department/Agency:	7. Federal Program Name/Description: CFDA Number, *if applicable*: _____
8. Federal Action Number, *if known*:	9. Award Amount, *if known*: $
10. a. Name and Address of Lobbying Entity (*if individual, last name, first name, MI*):	b. Individuals Performing Services (*including address if different from No. 10a*) (*last name, first name, MI*):

(*attach Continuation Sheet(s) SF-LLL-A, if necessary*)

11. Amount of Payment (*check all that apply*):	13. Type of Payment (*check all that apply*):
$ _____ ☐ actual ☐ planned	☐ a. retainer ☐ b. one-time fee ☐ c. commission ☐ d. contingent fee ☐ e. deferred ☐ f. other; specify: _____
12. Form of Payment (*check all that apply*): ☐ a. cash ☐ b. in-kind; specify: nature _____ value _____	

14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11:

(*attach Continuation Sheet(s) SF-LLL-A, if necessary*)

15. Continuation Sheet(s) SF-LLL-A attached: ☐ Yes ☐ No

16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: _____

Print Name: _____

Title: _____

Telephone No.: _____ Date: _____

Federal Use Only:

Authorized for Local Reproduction
Standard Form - LLL

BILLING CODE 4185-01-C

Attachment I

The following DHHS regulations apply to all applicants/grantees under the Family Support Center and Gateway Demonstration Programs:

Title 45 of the Code of Federal Regulations

Part 16—Procedures of the Departmental Grant Appeals Board

Part 74—Administration of Grants (non-governmental)

Part 74—Administration of Grants (state and local governments and Indian Tribal affiliates):

Sections

74.62(a) Non-Federal Audits
74.173 Hospitals
74.174(b) Other Nonprofit Organizations
74.304 Final Decisions in Disputes
74.710 Real Property, Equipment and Supplies
74.715 General Program Income

Part 75—Informal Grant Appeal Procedures

Part 76—Debarment and Suspension from Eligibility for Financial Assistance; Subpart F—Drug Free Workplace Requirements

Sections

Part 80—Non-discrimination under Programs Receiving Federal Assistance through the Department of Health and Human Services Effectuation of Title VI of the Civil Rights Act of 1964

Part 81—Practice and Procedures for Hearings Under Part 80 of this Title

Part 83—Non-discrimination on the basis of sex in the admission of individuals to training programs

Part 84—Non-discrimination on the Basis of Handicap in Programs

Part 91—Non-discrimination on the Basis of Age in Health and Human Services Programs or Activities Receiving Federal Financial Assistance

Part 92—Uniform Administrative Requirements for Grants and Cooperative Agreements to States and Local Governments (**Federal Register**, March 11, 1988)

Part 93—New Restrictions on Lobbying

Part 100—Intergovernmental Review of Department of Health and Human Services Programs and Activities

Attachment J—Certification Regarding Maintenance of Effort

The undersigned certifies that:

(1) activities funded under this program announcement are in addition to, and not in substitution for, activities previously carried on without Federal assistance.

(2) funds or other resources currently devoted to activities designed to meet the needs of the poor within a community, area, or State have not been reduced in order to provide the required matching contributions.

When legislation for a particular block grant permits the use of its funds as match, the applicant must show that it has received a real increase in its block grant allotment and must certify that other anti-poverty programs will not be scaled back to provide the match required for this project.

Organization

Authorized Signature

Title

Date

[FR Doc. 93–17097 Filed 7–19–93; 8:45 am]
BILLING CODE 4184–01–M

Reader Aids

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Vol. 58, No. 137

Tuesday, July 20, 1993

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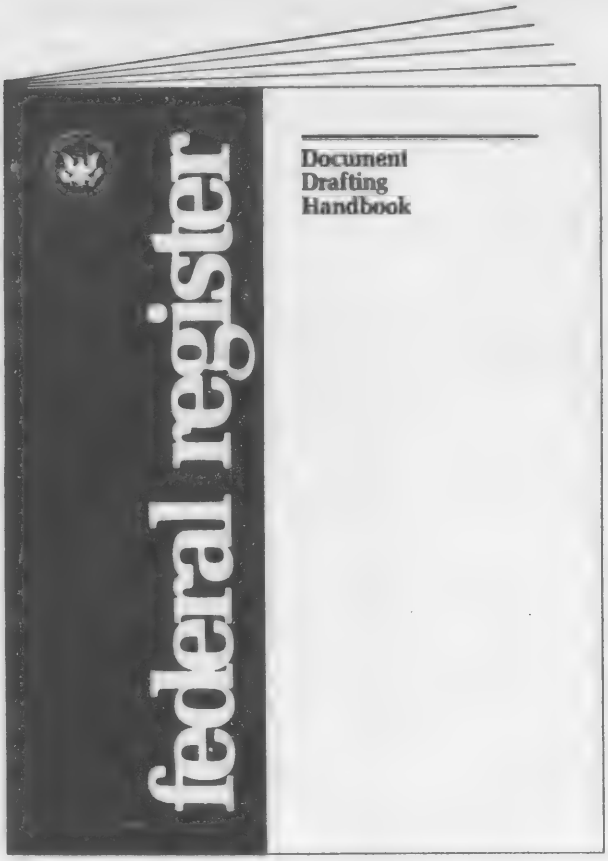

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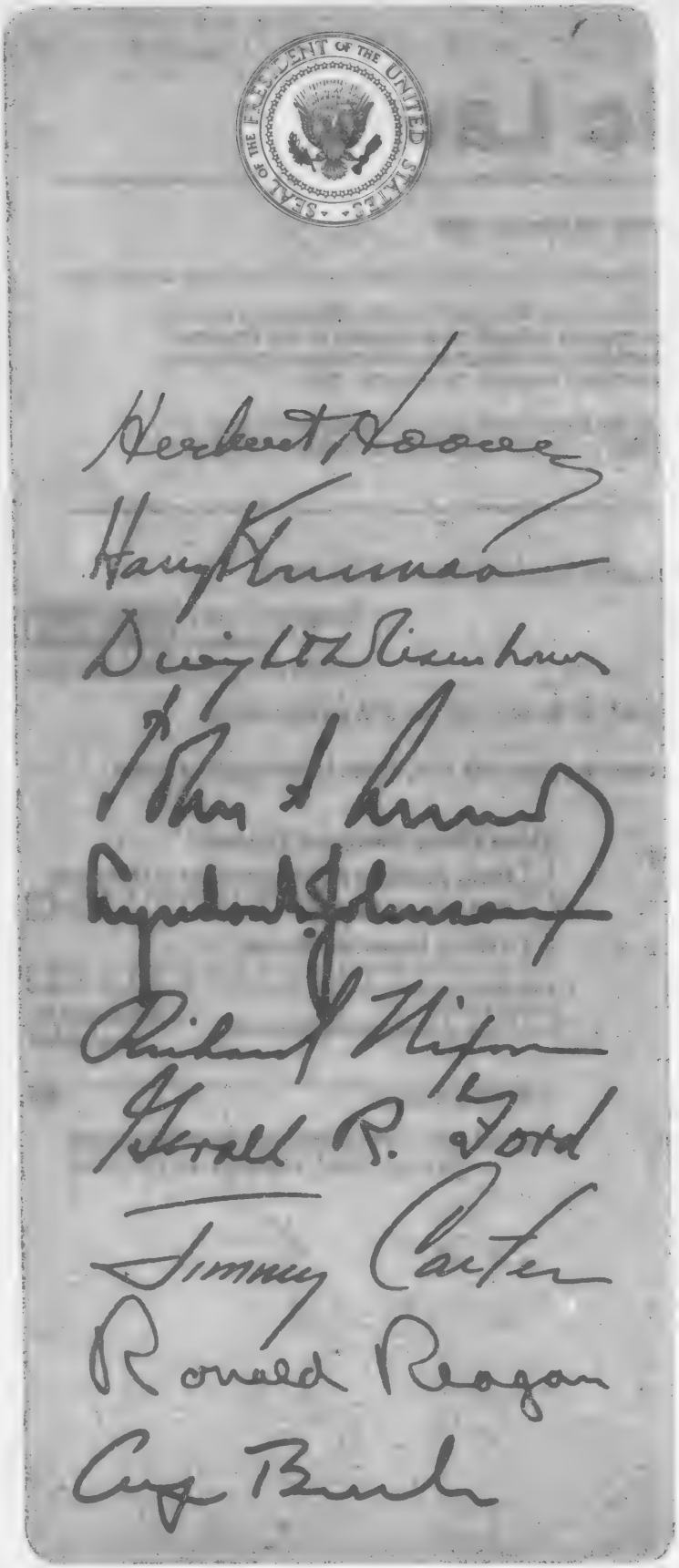

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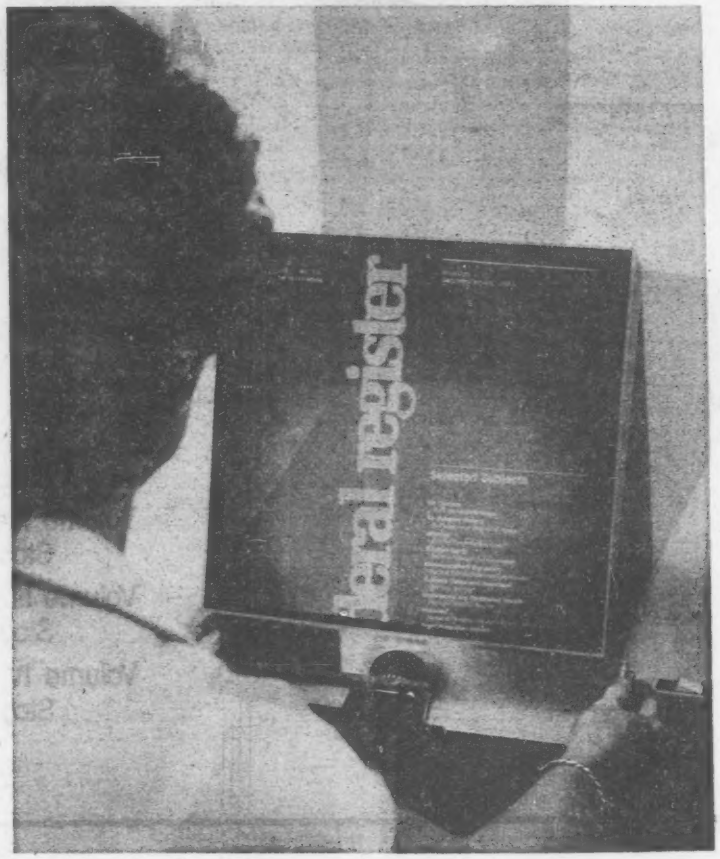

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